

TEXAS REGISTER

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5th Grade

Clover Elementary

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Automobile Theft Prevention Authority

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ATTORNEY GENERAL

Under provisions set out in the Texas Constitution, the Texas Government Code, Title 4, §402.042 and numerous statutes, the attorney general is authorized to write advisory opinions for state and local officials. These advisory opinions are requested by agencies or officials when they are confronted with unique or unusually difficult legal questions. The attorney general also determines, under authority of the Texas Open Records Act, whether information requested for release from governmental agencies may be held from public disclosure. Requests for opinions, opinions, and open record decisions are summarized for publication in the ***Texas Register***. The Attorney General responds to many requests for opinions and open records decisions with letter opinions. A letter opinion has the same force and effect as a formal Attorney General Opinion, and represents the opinion of the Attorney General unless and until it is modified or overruled by a subsequent letter opinion, a formal Attorney General Opinion, or a decision of a court of record. To request copies of opinions, phone (512) 462-0011. To inquire about pending requests for opinions, phone (512) 463-2110.

Requests for Opinion

RQ-937. Request from Mr. Ray Farabee, Vice Chancellor and General Counsel, The University of Texas System, 201 West Seventh Street, Austin, Texas 78701-2981, regarding Constitutionality of section 54.203 of the Education Code.

RQ-938. Request from the Honorable Michael P. Fleming, Harris County Attorney, 1001 Preston, Suite 634, Houston, Texas 77002-1891, regarding whether a county may amend a tax abatement agreement to remove land from a reinvestment zone.

TRD-9706707

ID# 39428. Request from the Honorable David Aken, San Patricio County Attorney, San Patricio County Courthouse, Room 102, Sinton, Texas 78387, regarding whether a person charged with a petty criminal offence has a right to trial by jury.

ID# 39523. Request from the Honorable Thomas F. Lee, District Attorney, 63rd Judicial District, P.O. Box 1405, Del Rio, Texas 78841, regarding whether the Val Verde Hospital District may construct a building to lease to private physicians.

ID# 39530. Request from the Honorable Jefferey Herrington, Criminal District Attorney, Anderson County, Anderson County

Courthouse, 500 North Church Street, Palestine, Texas 75801, regarding whether a county clerk may control expenditures from the county's Record Management and Preservation Fund.

ID# 39536. Request from the Honorable Michael J. Guarino, Criminal District Attorney, Galveston County, County Courthouse, 722 Moody, Suite 300, Galveston, Texas 77550, regarding whether the Galveston County Community Supervision and Corrections Board is required to establish a Voluntary Exit Incentive Program.

ID# 39538. Request from the Honorable Barry B. Telford, Texas House of Representatives, P.O. Box 2910, Austin, Texas 78768-2910, regarding whether a governmental body may discuss a tax abatement in executive session under the Open Meetings Act, chapter 551, Government Code.

ID# 39547. Request from the Honorable Charles D. Penick, Criminal District Attorney, Bastrop County, 804 Pecan Street, Bastrop, Texas 78602, regarding Constable's purchase of a vehicle from a dealer that has contracted with the state under the Purchasing Act, Government Code, chapter 2156.

TRD-9706765

TEXAS ETHICS COMMISSION

The Texas Ethics Commission is authorized by the Government Code, §571.091, to issue advisory opinions in regard to the following statutes: the Government Code, Chapter 302; the Government Code, Chapter 305; the Government Code, Chapter 572; the Election Code, Title 15; the Penal Code, Chapter 36; and the Penal Code, Chapter 39.

Requests for copies of the full text of opinions or questions on particular submissions should be addressed to the Office of the Texas Ethics Commission, P.O. Box 12070, Austin, Texas 78711-2070, (512) 463-5800.

Ethics Advisory Opinion

EAO-368. Whether a judge may accept an offer from the sponsor of a legal seminar to allow the judge to attend the seminar at no cost. (AOR-405)

SUMMARY A waiver of a seminar fee is not an officeholder contribution for purposes of title 15 of the Election Code nor is it a benefit for purposes of section 36.08 of the Penal Code if the fee would otherwise be reimbursable from county funds.

EAO-369. Whether a member of the Agriculture Resources Protection Authority is required to file a personal financial statement. (AOR-406)

SUMMARY A member of the Agriculture Resources Protection Authority (ARPA) is not, by virtue of his or her ARPA membership, required to file a personal financial disclosure statement under chapter 572 of the Government Code.

EAO-370. Whether Government Code section 572.023(11) requires that certain meals be reported on Part XI of the personal financial disclosure statement form. (SP-7)

SUMMARY A person who is required to file a personal financial disclosure statement under chapter 572 of the Government Code and who speaks at an event that includes a meal for the speaker and the audience is not required to report the meal on Part XI of the financial disclosure statement form.

Questions on particular submissions should be addressed to the Texas Ethics Commission, P.O. Box 12070, Capitol Station, Austin, Texas 78711-2070, (512) 463-5800.

Issued in Austin, Texas, on May 22, 1997.

TRD-9706766

Karen Lundquist

General Counsel

Texas Ethics Commission

Filed: May 22, 1997

◆ ◆ ◆

PROPOSED RULES

Before an agency may permanently adopt a new or amended section or repeal an existing section, a proposal detailing the action must be published in the *Texas Register* at least 30 days before action is taken. The 30-day time period gives interested persons an opportunity to review and make oral or written comments on the section. Also, in the case of substantive action, a public hearing must be granted if requested by at least 25 persons, a governmental subdivision or agency, or an association having at least 25 members.

Symbology in proposed amendments. New language added to an existing section is indicated by the use of **bold text**. [Brackets] indicate deletion of existing material within a section.

TITLE 1. ADMINISTRATION

Part IV. Office of Secretary of State

Chapter 81. Elections

Voting Systems Certification

1 TAC §81.60

The Office of the Secretary of State, Elections Division, proposes an amendment to §81.60, concerning voting system certification procedures. The amendment adds a new paragraph requiring all voting systems certified by the Secretary of State to be accessible to the physically disabled and to the blind and visually-impaired in a manner that permits unassisted voting.

The amendment is proposed in compliance with a court order entered on June 10, 1996, in the case of *Lightbourn v. Garza*, 928 F. Supp. 711 (W.D. Tex. 1996) that requires the secretary of state to issue directives relating to standards for voting system certification. This court order has been appealed to the United States Court of Appeals for the Fifth Circuit, and the proposed amendment may be revised based upon the ruling of that court.

Ann McGeehan, Deputy Assistant Secretary of State for Elections, has determined that for the first five-year period this rule is in effect there will be no fiscal implications for state government as a result of enforcing or administering this rule. There will be fiscal implications for local governments, but these implications cannot be determined because voting systems vary from county to county for the counties that use electronic voting systems. The secretary of state has contacted voting system vendors, and they are unable to provide cost estimates for local governments.

Ms. McGeehan also has determined that for each year of the first five years the section is in effect, the public benefit anticipated as a result of enforcing the section will be to keep the state in compliance with a federal court order and the potential

development of accessible voting systems to the physically disabled and the blind and visually impaired.

Comments on the amendment may be submitted to Ann McGeehan, Deputy Assistant Secretary of State for Elections, Office of the Secretary of State, P.O. Box 12060, Austin, Texas 78711-2060. A public hearing is scheduled for August 1, 1997. All written comments must be received by August 1, 1997.

The amendment is proposed in compliance with the above-referenced court order and under the Texas Election Code, Chapter 31, Subchapter A, §31.003, which provides the secretary of state with authority to promulgate rules to obtain uniformity in the interpretation and application of the Code, and under the Texas Election Code, Chapter 122, Subchapter A, §122.001, which authorizes the secretary of state to prescribe additional standards for voting systems.

§81.60. Voting System Certification Procedures.

In addition to the procedures prescribed by the Texas Election Code, Chapter 122, compliance with the following procedures is required for certification of a voting system.

(1)-(10) (No change.)

(11) **Subject to paragraph (12), the [The] secretary of state must approve or disapprove the voting system(s) within 30 days of receipt of all the examiners' reports.**

(12) A voting system shall not be certified unless it is physically accessible to voters with mobility impairments. A voting system shall not be certified unless it enables visually impaired or blind voters to cast their ballots without assistance.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 28, 1997.

TRD-9706985

Clark Kent Ervin

Assistant Secretary of State

Office of Secretary of State

TITLE 16. ECONOMIC REGULATION

Part II. Public Utility Commission of Texas

Chapter 23. Substantive Rules

Customer Service and Protection

16 TAC §23.59

The Public Utility Commission of Texas (PUC) proposes an amendment to §23.59, relating to Nuclear Decommissioning Trusts. The proposed amendment will allow utilities to invest decommissioning trust funds in certain types of mutual funds.

Thomas L. Brocato, Assistant General Counsel, has determined that for each year of the first five-year period the proposed section is in effect there will be no fiscal implications for state or local government as a result of enforcing or administering the section.

Mr. Brocato has also determined that for each year of the first five years the proposed section is in effect the public benefit anticipated as a result of enforcing the section will be that utilities will be allowed to invest decommissioning trust funds in certain types of mutual funds which should result in greater earnings for the utilities and a subsequent reduction in the ratepayers' contribution to funding for decommissioning. There will be no effect on small businesses as result of enforcing this section. There is no anticipated economic cost to persons who are required to comply with the section as proposed.

Mr. Brocato has also determined that for each year of the first five years the proposed section is in effect there will be no impact on employment in the geographical area affected by implementing the requirements of the section.

Comments on the proposed amendment (16 copies) may be submitted to Steve Davis, Secretary of the Commission, Public Utility Commission of Texas, 1701 North Congress Avenue, P.O. Box 13326, Austin, Texas 78711-13326, within 30 days after publication. The commission invites specific comments regarding the costs associated with, and benefits that will be gained by implementation of the amendment. The commission will consider the costs and benefits in deciding whether to adopt the amendment. Additionally, the commission invites specific comments on the proposed cap on cumulative decommissioning trust fund management fees. All comments should refer to Project Number 14908. Please note that in the proposed rule, some of the text shown to be deleted in one portion of the rule, may appear as new text in another portion of the rule.

This amendment is proposed under the Public Utility Regulatory Act of 1995 (PURA95), §1.101, Texas Revised Civil Statutes Annotated, article 1446c-O (Vernon 1997), which provides the Public Utility Commission with the authority to make and enforce rules reasonably required in the exercise of its powers and jurisdiction, including rules of practice and procedure.

Cross Index to Statutes: Public Utility Regulatory Act of 1995 §1.101.

§23.59. *Nuclear Decommissioning Trusts.*

(a) Duties of electric utilities.

(1)-(2) (No change.)

(3) The utility shall retain the right to replace the trustee with or without cause. In appointing a trustee, the electric utility shall have the following duties, which will be of a continuing nature:

(A) A duty to determine whether the trustee's fee schedule for administering the trust is reasonable, when compared to other institutional trustees rendering similar services, **and meets the requirement of subsection (c)(2)(A) of this section;**

(B) - (E) (No change.)

(4) The utility shall retain the right to replace the investment manager with or without cause. In appointing an investment manager, the utility shall have the following duties, which will be of a continuing nature:

(A) A duty to determine whether the investment manager's fee schedule for investment management services is reasonable, when compared to other such managers, **and meets the requirement of subsection (c)(2)(A) of this section;**

(B) - (E) (No change.)

(b) Agreements between the electric utility and the institutional trustee or investment manager.

(1) The utility shall execute an agreement with the institutional trustee. The agreement shall include the restrictions set forth in subparagraphs (A) - (E) [(D)] of this paragraph and may include additional restrictions on the trustee. An electric utility shall not grant the trustee powers that are greater than those provided to trustees under the Texas Trust Code or that are inconsistent with the limitations of this section.

(A) - (D) (No change.)

(E) The agreement shall comply with all applicable requirements of the Nuclear Regulatory Commission.

(2) The utility shall execute an agreement with the investment manager. (If the trustee performs investment management functions, the contractual provisions governing those functions must be included in either the trust agreement or a separate investment management agreement.) The agreement shall include the restrictions set forth in subparagraphs (A) - (E) [(D)] of this paragraph and may include additional restrictions on the manager. An electric utility shall not grant the manager powers that are greater than those provided to trustees under the Texas Trust Code or that are inconsistent with the limitations of this section.

(A) - (D) (No change.)

(E) The agreement shall comply with all applicable requirements of the Nuclear Regulatory Commission.

(3)-(4) (No change.)

(c) Trust investments.

(1) Investment portfolio goals. The funds should be invested consistent with the following goals. The utility may apply additional prudent investment goals to the funds

so long as they are not inconsistent with the stated goals of this subsection. [Decommissioning trust agreements shall comply with all requirements of the Nuclear Regulatory Commission. The utility may invest the decommissioning funds by means of qualified or unqualified nuclear decommissioning trust; however, the utility shall, to the extent permitted by the Internal Revenue Service, invest its decommissioning funds in "qualified" nuclear decommissioning trusts, in accordance with the Internal Revenue Service Code §468A. The utility may request from the Commission a good cause waiver to invest funds in non-qualified trusts for those amounts determined by the Internal Revenue Service to be eligible for investment in "qualified" funds. The utility need not request a good cause waiver for amounts deposited into a "non-qualified" trust which are in excess of amounts that the Internal Revenue Service determines to be eligible for investment in "qualified" trusts.]

(A) The funds should be invested with a goal of earning a reasonable return commensurate with the need to preserve the value of the assets of the trusts.

(B) In keeping with prudent investment practices, the portfolio of securities held in the decommissioning trust shall be diversified to the extent reasonably feasible given the size of the trust.

(C) Asset allocation and the acceptable risk level of the portfolio should take into account both market conditions and the time horizon remaining before the commencement of decommissioning. While maintaining an acceptable risk level consistent with the goal in subparagraph (A) of this paragraph, the investment emphasis during the initial three-fourths of the funding period of the trust should be to maximize net long term earnings, while the emphasis in the remaining funding period of the trust should be on current income and the preservation of the fund's assets.

(D) In selecting investments, the impact of commissions, fees, and taxes on the total return as well as the volatility of the investment should be considered.

(2) General requirements. The following requirements shall apply to all decommissioning trusts. Where a utility has multiple trusts for a single generating unit, the restrictions contained in this subsection apply to all trusts in the aggregate for that generating unit. For purposes of this section, a commingled fund is defined as a professionally managed investment fund of fixed-income or equity securities established by an investment company regulated by the Securities Exchange Commission or a bank regulated by the Office of the Comptroller of the Currency. [The following restrictions apply to investments of decommissioning trust funds.]

(A) Fees limitation. The total trustee and investment manager fees paid on an annual basis by the utility shall not exceed 0.5% of the fund's average annual balance. [The funds should be invested with a goal of earning a reasonable return commensurate with the need to preserve the value of the assets of the trusts.]

(B) Diversification. Once the portfolio of securities held in the decommissioning trust(s) contains securities with an aggregate value in excess of 20 million, it shall be diversified such that: [A decommissioning trust shall not invest trust funds in corporate or municipal debt securities that have a bond rating below

investment grade ("BBB" by Standard and Poor's Corporation or "Baa" by Moody's Investor's Service) at the time that the securities are purchased. The overall portfolio of debt instruments shall have a quality level not below a "AA" grade by Standard and Poor's Corporation or "Aa" by Moody's Investor's Service. In calculating the quality of the overall portfolio, debt securities issued by the federal government shall be considered as having a "AAA" rating.]

(i) no more than 5.0% of the securities held may be issued by one entity, with the exception of the federal government, its agencies and instrumentalities; and

(ii) the portfolio shall contain at least 20 different issues of securities. Municipal securities and real estate investments shall be diversified as to geographic region.

(C) The utility may invest the decommissioning funds by means of qualified or unqualified nuclear decommissioning trusts; however, the utility shall, to the extent permitted by the Internal Revenue Service, invest its decommissioning funds in "qualified" nuclear decommissioning trusts, in accordance with the Internal Revenue Service Code, §468A. [A decommissioning trust shall not invest in equity securities of companies that have a debt rating below investment grade ("BBB" by Standard and Poor's Corporation or "Baa" by Moody's Investor's Service) at the time that the securities are purchased. Equity securities in companies that do not have rated debt securities may be purchased only if, at the time that the securities are purchased, the issuer has a capitalization of more than \$100 million dollars and has paid common dividends for at least five years.]

(D) Except in small quantities in broadly diversified commingled funds, investments in derivatives or below-investment grade bonds is prohibited. For purposes of this subsection, a small quantity is defined as less than 5.0% of the fair market value of the commingled fund. [A decommissioning trust shall not invest in securities issued by the electric utility collecting the funds or any of its affiliates; provided, however, that investments of a decommissioning trust may include mutual funds that contain securities issued by the electric utility if the securities of the utility constitute no more than 5.0% of the fair market value of the assets of such mutual funds at the time of the investment.]

(E) The use of leverage (borrowing) to purchase securities or the purchase of securities on margin for the trust is prohibited. [In keeping with prudent investment practices, the portfolio of securities held in the decommissioning trust shall be diversified to the extent reasonably feasible given the size of the trust. No more than 50% of the trust's fair market value shall be invested in equity securities; municipal securities and real estate investments shall be diversified as to geographic region. Where a utility has multiple trusts for a single generating unit, the restrictions contained in this subsection apply to all trusts in the aggregate for that generating unit. The portfolio of securities held in the decommissioning trust(s) that contain securities with an aggregate value in excess of \$40 million shall be diversified in accordance with the following additional restrictions: No more than 5.0% of the securities held may be issued by one entity, with the exception of the federal government, its agencies and instrumentalities; and there shall be at least 20 different issues of securities in the portfolio.]

(F) Investment limits in equity securities. The following investment limits shall apply to the percentage of the aggregate market value all non-fixed income investments relative

to the total portfolio market value. Should the market value of non-fixed income investments ever exceed the appropriate cap, the utility shall invest all future transfers to the fund in debt securities as is necessary to reduce the market value of the non-fixed income investments below the cap.

(i) Until the beginning of the tenth year prior to the expected commencement of decommissioning, the cap is 60%;

(ii) During the last ten years prior to the expected commencement of decommissioning, the cap shall be 20%.

(G) A decommissioning trust shall not invest in securities issued by the electric utility collecting the funds or any of its affiliates; however, investments of a decommissioning trust may include commingled funds that contain securities issued by the electric utility if the securities of the utility constitute no more than 5.0% of the fair market value of the assets of such funds at the time of the investment.

(3) Specific investment restrictions. The following restrictions shall apply to all decommissioning trusts. Where a utility has multiple trusts for a single generating unit, the restrictions contained in this subsection apply to all trusts in the aggregate for that generating unit.

(A) Fixed-income investments. A decommissioning trust shall not invest trust funds in corporate or municipal debt securities that have a bond rating below investment grade ("BBB" by Standard and Poor's Corporation and "Baa" by Moody's Investor's Service) at the time that the securities are purchased and shall reexamine the appropriateness of continuing to hold a particular debt security if the debt rating of the company in question falls below investment grade at some time after the equity security has been purchased. The overall portfolio of debt instruments shall have a quality level not below a "AA" grade by Standard and Poor's Corporation or "Aa" by Moody's Investor's Service. In calculating the quality of the overall portfolio, debt securities issued by the Federal government shall be considered as having a "AAA" rating.

(B) Equity investments. Except for investments in commingled equity funds, decommissioning trust investment in equity securities shall comply with the following restrictions:

(i) A decommissioning trust shall not invest in equity securities of companies that have a debt rating below investment grade ("BBB" by Standard and Poor's Corporation and "Baa" by Moody's Investor's Service) at the time that the securities are purchased, and shall reexamine the appropriateness of continuing to hold a particular equity security if the debt rating of the company in question falls below investment grade at some time after the equity security has been purchased.

(ii) Equity securities in companies that do not have rated debt securities may be purchased only if, at the time that the securities are purchased, the issuer has a capitalization of more than \$100 million dollars and has paid common dividends for at least five years.

(C) Commingled funds. The following guidelines shall apply to the investments made through commingled funds. Examples of commingled funds appropriate for investment by nuclear decommissioning trust funds include United States equity-

indexed funds, balanced funds, bond funds, and international funds which are based in the United States.

(i) The commingled funds should be selected consistent with the goals specified in paragraph (1) and the requirements in paragraph (2) of this subsection.

(ii) In evaluating the appropriateness of a particular commingled fund, the utility and the utility's investment manager have the following duties, which shall be of a continuing nature:

(I) A duty to determine whether the fund manager's fee schedule for managing the fund is reasonable, when compared to fee schedules of other such managers;

(II) A duty to investigate and determine whether the past performance of the investment manager in managing a commingled fund has been reasonable relative to prudent investment and utility decommissioning trust practices and standards; and

(III) A duty to investigate the reasonableness of the net return and risk of the fund relative to similar funds, and the appropriateness of the fund within the entire decommissioning trust investment portfolio.

(iii) The use of load funds and funds that charge 12b-1 fees shall be avoided.

(iv) Commingled funds focused on specific sectors or concentrated in a few holdings shall be used only as necessary to balance the trust's overall investment portfolio mix.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 22, 1997.

TRD-9706804

Rhonda Dempsey

Rules Coordinator

Public Utility Commission of Texas

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 936-7283



Part VIII. Texas Racing Commission

Chapter 303. General Provisions

Subchapter D. Texas Bred Incentive Programs

Programs for Horses

16 TAC §303.94

The Texas Racing Commission proposes an amendment to §303.94, concerning the Texas Bred Incentive Program for Arabian horses. The amendment extends the period during which an Arabian horse may be accredited as Texas-bred under the "grandfather clause". The proposal is the result of a petition for rulemaking under 16 Texas Administrative Code, §307.303, submitted by the Texas Arabian Breeders Association, the official breed registry for Arabian horses in this state.

Paula C. Flowerday, General Counsel for the Texas Racing Commission, has determined that for the first five-year period the amendment is in effect there will be no fiscal implications for state or local government as a result of enforcing or administering the section as proposed.

Ms. Flowerday has also determined that for each of the first five years the amendment is in effect the public benefit anticipated as a result of enforcing the proposal will be that more citizens of this state will be eligible to participate in and receive financial awards through the Texas Bred Incentive Program for Arabian horses. There will be no fiscal implications for small businesses. There are no anticipated economic costs to persons who are required to comply with the section as proposed.

Comments on the proposal may be submitted on or before August 1, 1997, to Paula C. Flowerday, General Counsel for the Texas Racing Commission, P.O. Box 12080, Austin, Texas 78711-2080.

The amendment is proposed under Texas Civil Statutes, Article 179e, §3.02, which authorize the Commission to adopt rules for conducting racing with wagering and for administering the Texas Racing Act; and §6.08(g), which authorizes the Commission to adopt rules relating to the accounting, audit, and distribution of Texas-bred incentive awards.

The proposed amendment implements Texas Civil Statutes, Article 179e.

§303.94. Arabian Horse Rules.

The commission adopts by reference the rules of the Texas Arabian Breeders Association dated **May 5, 1997** [August 18, 1996], regarding the administration of the Texas Bred Incentive Program for Arabian horses. Copies of these rules are available at the Texas Racing Commission, P.O. Box 12080, Austin, Texas 78711, or at the commission office at 8505 Cross Park Drive, #110, Austin, Texas 78754-4594.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706713

Paula C. Flowerday

General Counsel

Texas Racing Commission

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 833-6699



Chapter 313. Officials and Rules of Horse Racing

Subchapter C. Claiming Races

16 TAC §313.312

The Texas Racing Commission proposes an amendment to §313.312, concerning protests relating to claimed horses. The amendment requires the Commission to notify the claimant of a horse if the horse tested positive for a prohibited substance.

Paula C. Flowerday, General Counsel for the Texas Racing Commission, has determined that for the first five-year period

the amendment is in effect there will be no fiscal implications for state or local government as a result of enforcing or administering the section as proposed.

Ms. Flowerday has also determined that for each of the first five years the amendment is in effect the public benefit anticipated as a result of enforcing the proposal will be that licensees who claim horses will be better informed about the physical condition of the horses. There will be no fiscal implications for small businesses. There are no anticipated economic costs to persons who are required to comply with the section as proposed.

Comments on the proposal may be submitted on or before August 1, 1997, to Paula C. Flowerday, General Counsel for the Texas Racing Commission, P.O. Box 12080, Austin, Texas 78711-2080.

The amendment is proposed under Texas Civil Statutes, Article 179e, §3.02, which authorize the Commission to adopt rules for conducting racing with wagering and for administering the Texas Racing Act; and §6.06, which authorizes the Commission to adopt rules on all matters relating to the operation of racetracks.

The proposed amendment implements Texas Civil Statutes, Article 179e.

§313.312. Protests.

(a) (No change.)

(b) On a finding by the laboratory director that a test specimen from a horse claimed under this subchapter contained a prohibited drug, chemical or other substance, **the commission shall notify the claimant of the positive test.** [pursuant to §319.362 of this title (relating to Split Specimen) the claimant may, within 72 hours of notification of such a finding, refuse to accept the claimed horse. The claiming price, applicable transfer fees, and actual costs incurred for the care of the horse from the time of the claim until the time the horse is returned is immediately due and payable to the claimant from the owner from whom the horse was claimed.]

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706712

Paula C. Flowerday

General Counsel

Texas Racing Commission

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For further information, please call: (512) 833-6699



Chapter 315. Officials and Rules of Greyhound Racing

Subchapter B. Entries and Pre-race Procedures

16 TAC §315.102

The Texas Racing Commission proposes an amendment to §315.102, concerning the number of double entries that may be

entered in a greyhound race. The amendment authorizes up to two double entries in each race. The proposal is the result of a petition for rulemaking under 16 Texas Administrative Code, §307.303, submitted by Corpus Christi Greyhound Race Track.

Paula C. Flowerday, General Counsel for the Texas Racing Commission, has determined that for the first five-year period the amendment is in effect there will be no fiscal implications for state or local government as a result of enforcing or administering the section as proposed.

Ms. Flowerday has also determined that for each of the first five years the amendment is in effect the public benefit anticipated as a result of enforcing the proposal will be that the number of greyhounds available for competition will increase and racing greyhounds will be given sufficient time to rest between races. There will be no fiscal implications for small businesses. There are no anticipated economic costs to persons who are required to comply with the section as proposed.

Comments on the proposal may be submitted on or before August 1, 1997, to Paula C. Flowerday, General Counsel for the Texas Racing Commission, P.O. Box 12080, Austin, Texas 78711-2080.

The amendment is proposed under Texas Civil Statutes, Article 179e, §3.02, which authorize the commission to adopt rules for conducting racing with wagering and for administering the Texas Racing Act; and §6.06, which authorizes the Commission to adopt rules on all matters relating to the operation of racetracks.

The proposed amendment implements Texas Civil Statutes, Article 179e.

§315.102. *Entry Procedure.*

(a)-(j) (No change.)

(k) In a purse race, there may not be more than **two double entries**. [one double entry. An owner or trainer may not enter more than two greyhounds in a race, except a stakes or sweepstakes race.] A double entry may not be entered until all single interests eligible for the performance are used. A double entry shall be uncoupled for wagering purposes.

(l)-(m) (No change.)

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706711

Paula C. Flowerday

General Counsel

Texas Racing Commission

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For further information, please call: (512) 833-6699



Chapter 321. Pari-mutuel Wagering

Subchapter B. Distribution of Pari-mutuel Pools

16 TAC §321.111, §321.117

The Texas Racing Commission proposes the repeal of §321.111 and §321.117, concerning the distribution of the twin trifecta wagering pool and the tri- superfecta wagering pool. New versions of these rules are being proposed to replace them.

Paula C. Flowerday, General Counsel for the Texas Racing Commission, has determined that for the first five-year period the repeals are in effect there will be no fiscal implications for state or local government as a result of enforcing or administering the sections as proposed.

Ms. Flowerday has also determined that for each of the first five years the repeals are in effect the public benefit anticipated as a result of enforcing the proposal will be that pari-mutuel wagering will be conducted with the utmost integrity. There will be no fiscal implications for small businesses. There are no anticipated economic costs to persons who are required to comply with the sections as proposed.

Comments on the proposal may be submitted on or before August 1, 1997, to Paula C. Flowerday, General Counsel for the Texas Racing Commission, P.O. Box 12080, Austin, Texas 78711-2080.

The repeals are proposed under the Texas Civil Statutes, Article 179e, §3.02, which authorize the commission to adopt rules for conducting racing with wagering and for administering the Texas Racing Act; and §11.01 which authorizes the Commission to adopt rules to strictly regulate pari-mutuel wagering.

The proposed repeals implement Texas Civil Statutes, Article 179e.

§321.111. *Twin Trifecta.*

§321.117. *Tri-superfecta.*

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706710

Paula C. Flowerday

General Counsel

Texas Racing Commission

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 833-6699



16 TAC §321.111, §321.117

The Texas Racing Commission proposes new §321.111 and §321.117, concerning the distribution of the twin trifecta wagering pool and the tri-superfecta wagering pool. The new sections replace the old versions which are being repealed to conform the rules to the Model Rules for Pari-mutuel Wagering promulgated by the Association of Racing Commissioners International.

Paula C. Flowerday, General Counsel for the Texas Racing Commission, has determined that for the first five-year period the new sections are in effect there will be no fiscal implications for state or local government as a result of enforcing or administering the sections as proposed.

Ms. Flowerday has also determined that for each of the first five years the new sections are in effect the public benefit anticipated as a result of enforcing the proposal will be that pari-mutuel wagering will be conducted with the utmost integrity. There will be no fiscal implications for small businesses. There are no anticipated economic costs to persons who are required to comply with the sections as proposed.

Comments on the proposal may be submitted on or before August 1, 1997, to Paula C. Flowerday, General Counsel for the Texas Racing Commission, P.O. Box 12080, Austin, Texas 78711-2080.

The new sections are proposed under the Texas Civil Statutes, Article 179e, §3.02, which authorize the commission to adopt rules for conducting racing with wagering and for administering the Texas Racing Act; and §11.01 which authorizes the Commission to adopt rules to strictly regulate pari-mutuel wagering.

The proposed sections implement Texas Civil Statutes, Article 179e.

§321.111. Twin Trifecta.

(a) The twin trifecta wager is not a parlay and has no connection with or relation to the win, place, and show pools shown on the totalisator board. All tickets on the twin trifecta shall be calculated as a separate pool.

(b) The twin trifecta requires selection of the first three finishers, in their exact order, in each of two designated contests. Each winning ticket for the first twin trifecta contest must be exchanged for a free ticket on the second twin trifecta contest in order to remain eligible for the second-half twin trifecta pool. Such tickets may be exchanged only at designated attended ticket windows prior to the start of the second twin trifecta contest. Winning first-half twin trifecta wagers will receive both an exchange and a monetary payout. Both of the designated twin trifecta contests shall be included in only one twin trifecta pool.

(c) After wagering closes for the first-half of the twin trifecta and commissions have been deducted from the pool, the net pool shall then be divided equally (50% / 50%) into separate pools: the first-half twin trifecta pool and the second-half twin trifecta pool.

(d) In the first twin trifecta contest only, the first-half twin trifecta pool shall be distributed according to the following precedence, based upon the official order of finish for the first twin trifecta contest:

(1) As a single price pool to those whose combination finished in correct sequence as the first three betting interests; but if there are no such wagers, then

(2) As a single price pool to those whose combination included, in correct sequence, the first two betting interests; but if there are no such wagers, then

(3) As a single price pool to those whose combination included, in correct sequence, the first and third betting interests; but if there are no such wagers, then

(4) As a single price pool to those whose combination correctly selected the first-place betting interest; but if there are no such wagers, then

(5) As a single price pool to those whose combination included, in correct sequence, the second and third betting interests; but if there are no such wagers, then

(6) As a single price pool to those whose combination correctly selected the second-place betting interest; but if there are no such wagers, then

(7) As a single price pool to those whose combination correctly selected the third-place betting interest; but if there are no such wagers, then

(8) The twin trifecta pool shall be canceled and the entire pool shall be carried forward to the next consecutive performance and combined with that performance's second-half twin trifecta pool.

(e) If no first-half twin trifecta ticket selects the first three finishers of that contest in exact order, no exchange tickets for the second-half twin trifecta pool will be issued. In such case, the second-half twin trifecta pool shall be carried forward and added to any existing twin trifecta carryover pool.

(f) A first-half twin trifecta ticket that selects the first three finishers of that contest in exact order may be exchanged for a ticket selecting the first three finishers of the second twin trifecta contest. The second-half twin trifecta pool shall be distributed according to the following precedence, based upon the official order of finish for the second twin trifecta contest:

(1) As a single price pool, including any existing carry-over moneys, to those whose combination finished in correct sequence as the first three betting interests; but if there are no such tickets, then

(2) The second-half twin trifecta pool for that contest shall be carried forward to the next consecutive performance and shall be combined with that performance's second-half twin trifecta pool.

(g) If a winning first-half twin trifecta ticket is not presented for cashing and exchange prior to the start of the second twin trifecta contest, the ticket holder may still collect the monetary value associated with the first-half twin trifecta pool but forfeits all rights to any distribution of the second-half twin trifecta pool.

(h) If fewer than seven horses of different betting interests leave the paddock for the first twin trifecta contest or fewer than six greyhounds start the first twin trifecta contest, the twin trifecta contest shall be canceled and the entire twin trifecta pool for that contest shall be refunded.

(i) Before the running of the first twin trifecta contest, if due to a scratch the second twin trifecta contest has fewer than seven horses of different betting interests or fewer than six greyhounds of different betting interests, the twin trifecta contest shall be canceled and the entire twin trifecta pool for that contest shall be refunded.

(j) After the running of the first twin trifecta contest, if due to a late scratch, the second twin trifecta contest has fewer than six horses of different betting interests that start or has fewer than six greyhounds of different betting interests that start, all exchange tickets and outstanding first-half winning tickets shall be entitled to the second-half twin trifecta pool for that contest as a single price pool, but not the twin trifecta carryover.

(k) Coupled entries and mutuel fields may not be permitted in a twin trifecta horse contest unless there are seven or more betting interests. Coupled entries or mutuel fields in a twin trifecta contest

shall race as a single betting interest for the purpose of mutuel pool calculations and payout to the public.

(l) If a betting interest in the first twin trifecta contest is scratched, all twin trifecta wagers including the scratched betting interest shall be refunded.

(m) If a betting interest in the second twin trifecta contest is scratched, an announcement concerning the scratch shall be made and a reasonable amount of time shall be provided for exchange of tickets that include the scratched betting interest.

(n) If there is a dead heat or multiple dead heats in either the first or second twin trifecta contest, all twin trifecta wagers selecting the correct order of finish, counting a betting interest involved in a dead heat as finishing in any dead-heated position, shall be a winner. In the case of a dead heat occurring in:

(1) the first twin trifecta contest, the payout shall be calculated as a profit split; and

(2) the second twin trifecta contest, the payout shall be calculated as a single price pool.

(o) If either of the twin trifecta contests are canceled prior to the first twin trifecta contest, or if the first twin trifecta contest is declared "no contest," the entire twin trifecta pool for that contest shall be refunded and the second-half pool shall be canceled.

(p) If the second twin trifecta contest is canceled or declared "no contest" on a:

(1) non-designated mandatory payout performance, all exchange tickets and outstanding first-half winning twin trifecta tickets shall be entitled to the net twin trifecta pool for that contest as a single price pool, but not the twin trifecta carryover. If there are no such tickets, the net twin trifecta pool shall be carried forward to the next consecutive performance and combined with that performance's second-half twin trifecta pool.

(2) designated mandatory payout performance, all exchange tickets and outstanding first-half winning twin trifecta tickets as determined by subsection (s) of this section shall be entitled to the net twin trifecta pool for that contest and the twin trifecta carryover as a single price pool.

(q) A written request for permission to distribute the twin trifecta carryover on a specific performance may be submitted to the executive secretary. The request must contain justification for the distribution, an explanation of the benefit to be derived, and the intended date and performance for the distribution.

(r) Notwithstanding subsections (f) and (t) of this section, on the last performance of a race meeting or on a designated mandatory payout performance, the following precedence will be followed in determining winning tickets for the second-half of the twin trifecta:

(1) As a single price pool to those whose combination finished in correct sequence as the first three betting interests; but if there are no such wagers, then

(2) As a single price pool to those whose combination included, in correct sequence, the first two betting interests; but if there are no such wagers, then

(3) As a single price pool to those whose combination included, in correct sequence, the first and third betting interests; but if there are no such wagers, then

(4) As a single price pool to those whose combination correctly selected the first-place betting interest; but if there are no such wagers, then

(5) As a single price pool to those whose combination included, in correct sequence, the second and third betting interests; but if there are no such wagers, then

(6) As a single price pool to those whose combination correctly selected the second-place betting interest; but if there are no such wagers, then

(7) As a single price pool to those whose combination correctly selected the third-place betting interest; but if there are no such wagers, then

(8) As a single price pool to holders of valid exchange tickets; but if there are no such persons, then

(9) As a single price pool to holders of outstanding first-half winning tickets.

(s) Distribution on mandatory payout.

(1) Notwithstanding subsections (e) and (t) of this section, on the last performance of a race meet or a designated mandatory payout performance, exchange tickets will be issued for those combinations selecting the greatest number of betting interests in the following order:

(A) As a single price pool to those whose combination finished in correct sequence as the first three betting interests; but if there are no such wagers, then

(B) As a single price pool to those whose combination included, in correct sequence, the first two betting interests; but if there are no such wagers, then

(C) As a single price pool to those whose combination included, in correct sequence, the first and third betting interests; but if there are no such wagers, then

(D) As a single price pool to those whose combination correctly selected the first-place betting interest; but if there are no such wagers, then

(E) As a single price pool to those whose combination included, in correct sequence, the second and third betting interests; but if there are no such wagers, then

(F) As a single price pool to those whose combination correctly selected the second-place betting interest; but if there are no such wagers, then

(G) As a single price pool to those whose combination correctly selected the third-place betting interest.

(2) Notwithstanding subsections (e) and (t) of this section, on the last performance of a race meet or a designated mandatory payout performance, if there are no wagers selecting the finishers in the order described in paragraph (1) of this subsection and there is a carryover, all first-half tickets are considered winners and the twin trifecta pool for that contest and any existing twin trifecta carryover shall be distributed equally among them.

(3) Notwithstanding subsections (e) and (t) of this section, on the last performance of a race meet or a designated mandatory payout performance, if there are no wagers selecting the finishers in the order described in paragraph (1) of this subsection and there is no

carryover, the twin trifecta contest shall be canceled and the entire twin trifecta pool shall be refunded.

(t) Cap on carryover.

(1) The twin trifecta carryover may be capped at a designated level approved by the executive secretary so that if, at the close of any performance, the amount in the twin trifecta carryover equals or exceeds the designated cap, the twin trifecta carryover will be frozen until it is won or distributed under other provisions of this section. After the twin trifecta carryover is frozen, 50% of the twin trifecta pool shall be distributed to winners of the first twin trifecta contest using the following precedence:

(A) As a single price pool to those whose combination finished in correct sequence as the first three betting interests; but if there are no such wagers, then

(B) As a single price pool to those whose combination included, in correct sequence, the first two betting interests; but if there are no such wagers, then

(C) As a single price pool to those whose combination included, in correct sequence, the first and third betting interests; but if there are no such wagers, then

(D) As a single price pool to those whose combination correctly selected the first-place betting interest; but if there are no such wagers, then

(E) As a single price pool to those whose combination included, in correct sequence, the second and third betting interests; but if there are no such wagers, then

(F) As a single price pool to those whose combination correctly selected the second-place betting interest; but if there are no such wagers, then

(G) As a single price pool to those whose combination correctly selected the third-place betting interest; but if there are no such wagers, then

(H) the twin trifecta contest shall be canceled and the entire twin trifecta pool for that performance shall be refunded.

(2) After the twin trifecta carryover is frozen, exchange tickets will be issued for tickets selecting the first three finishers of the second twin trifecta contest. The second-half twin trifecta pool shall be distributed according to the following precedence, based upon the official order of finish for the second twin trifecta contest:

(A) As a single price pool, including any existing capped carryover moneys, to those whose combination finished in correct sequence as the first three betting interests; but if there are no such tickets, then

(B) The second-half twin trifecta pool for that performance only shall be distributed in the following precedence:

(i) As a single price pool to those whose combination included, in correct sequence, the first two betting interests; but if there are no such wagers, then

(ii) As a single price pool to those whose combination included, in correct sequence, the first and third betting interests; but if there are no such wagers, then

(iii) As a single price pool to those whose combination correctly selected the first-place betting interest; but if there are no such wagers, then

(iv) As a single price pool to those whose combination included, in correct sequence, the second and third betting interests; but if there are no such wagers, then

(v) As a single price pool to those whose combination correctly selected the second-place betting interest; but if there are no such wagers, then

(vi) As a single price pool to those whose combination correctly selected the third-place betting interest; but if there are no such wagers, then

(vii) As a single price pool to holders of valid exchange tickets; but if there are no such persons, then

(viii) As a single price pool to holders of outstanding first-half winning tickets.

(u) The twin trifecta carryover shall be designated for mandatory payout on a specified date and performance only under the following circumstances:

(1) upon written approval from the executive secretary as provided in subsection (q) of this section.

(2) upon written approval from the executive secretary when there is a change in the carryover cap or when the twin trifecta is discontinued; and

(3) on the closing performance of the meet or split meet.

(v) If, for any reason, the twin trifecta carryover must be held over to the corresponding twin trifecta pool of a subsequent meet, the carryover shall be deposited in an interest-bearing account approved by the executive secretary. The twin trifecta carryover plus accrued interest shall then be added to the second-half twin trifecta pool of the following meet on a date and performance so designated by the executive secretary.

(w) The association must obtain written approval from the executive secretary concerning the scheduling and the amount of any cap to be set on the carryover. Any changes to the approved twin trifecta format require prior approval from the executive secretary.

§321.117. *Tri-superfecta.*

(a) The tri-superfecta is not a parlay and has no connection with or relation to the win, place, or show pools on the totalisator board. All tickets on the tri-superfecta shall be calculated as a separate pool.

(b) The tri-superfecta requires selection of the first three finishers, in their exact order, in the first of two designated contests. Each winning ticket for the first tri-superfecta contest must be exchanged for a free ticket on the second tri-superfecta contest in order to remain eligible for the second-half tri-superfecta pool. Such tickets may be exchanged only at designated attended ticket windows prior to the start of the second tri-superfecta contest. Winning first-half tri-superfecta wagers will receive both an exchange and a monetary payout. Both of the designated tri-superfecta contests shall be included in only one tri-superfecta pool.

(c) After wagering closes for the first-half of the tri-superfecta and commissions have been deducted from the pool, the net pool shall then be divided equally (50% / 50%) into

separate pools: the first-half tri-superfecta pool and the second-half tri-superfecta pool.

(d) In the first tri-superfecta contest only, the first-half tri-superfecta pool shall be distributed according to the following precedence, based upon the official order of finish for the first tri-superfecta contest:

(1) As a single price pool to those whose combination finished in correct sequence as the first three betting interests; but if there are no such wagers, then

(2) As a single price pool to those whose combination included, in correct sequence, the first two betting interests; but if there are no such wagers, then

(3) As a single price pool to those whose combination included, in correct sequence, the first and third betting interests; but if there are no such wagers, then

(4) As a single price pool to those whose combination correctly selected the first-place betting interest; but if there are no such wagers, then

(5) As a single price pool to those whose combination included, in correct sequence, the second and third betting interests; but if there are no such wagers, then

(6) As a single price pool to those whose combination correctly selected the second-place betting interest; but if there are no such wagers, then

(7) As a single price pool to those whose combination correctly selected the third-place betting interest; but if there are no such wagers, then

(8) The tri-superfecta pool shall be canceled and the entire pool shall be carried forward to the next consecutive performance and combined with that performance's second-half tri-superfecta pool.

(e) If no first-half tri-superfecta ticket selects the first three finishers of that contest in exact order, no exchange tickets for the second-half tri-superfecta pool will be issued. In such case, the second-half tri-superfecta pool shall be carried forward and added to any existing tri-superfecta carryover pool.

(f) A first-half tri-superfecta ticket that selects the first three finishers of that contest in exact order may be exchanged for a ticket selecting the first four finishers of the second tri-superfecta contest. The second-half tri-superfecta pool shall be distributed according to the following precedence, based upon the official order of finish for the second tri-superfecta contest:

(1) As a single price pool, including any existing carry-over moneys, to those whose combination finished in correct sequence as the first four betting interests; but if there are no such tickets, then

(2) The second-half tri-superfecta pool for that contest shall be carried forward to the next consecutive performance and shall be combined with that performance's second-half tri-superfecta pool.

(g) If a winning first-half tri-superfecta ticket is not presented for cashing and exchange prior to the start of the second tri-superfecta contest, the ticket holder may still collect the monetary value associated with the first-half tri-superfecta pool but forfeits all rights to any distribution of the second-half tri-superfecta pool.

(h) If fewer than seven horses of different betting interests leave the paddock for the first tri-superfecta contest or fewer than six greyhounds start the first tri-superfecta contest, the tri-superfecta contest shall be canceled and the entire tri-superfecta pool for that contest shall be refunded.

(i) Before the running of the first tri-superfecta contest, if due to a scratch the second tri-superfecta contest has fewer than eight horses of different betting interests or fewer than seven greyhounds of different betting interests, the tri-superfecta contest shall be canceled and the entire tri-superfecta pool for that contest shall be refunded.

(j) After the running of the first tri-superfecta contest, if due to a late scratch, the second tri-superfecta contest has fewer than eight horses of different betting interests that start or has fewer than seven greyhounds of different betting interests that start, all exchange tickets and outstanding first-half winning tickets shall be entitled to the second-half tri-superfecta pool for that contest as a single price pool, but not the tri-superfecta carryover.

(k) Coupled entries and mutuel fields may not be permitted in a tri-superfecta horse contest unless there are eight or more betting interests. Coupled entries or mutuel fields in a tri-superfecta contest shall race as a single betting interest for the purpose of mutuel pool calculations and payout to the public.

(l) If a betting interest in the first tri-superfecta contest is scratched, all tri-superfecta wagers including the scratched betting interest shall be refunded.

(m) If a betting interest in the second tri-superfecta contest is scratched, an announcement concerning the scratch shall be made and a reasonable amount of time shall be provided for exchange of tickets that include the scratched betting interest.

(n) If there is a dead heat or multiple dead heats in either the first or second tri-superfecta contest, all tri-superfecta wagers selecting the correct order of finish, counting a betting interest involved in a dead heat as finishing in any dead-heated position, shall be a winner. In the case of a dead heat occurring in:

(1) the first tri-superfecta contest, the payout shall be calculated as a profit split; and

(2) the second tri-superfecta contest, the payout shall be calculated as a single price pool.

(o) If either of the tri-superfecta contests are canceled prior to the first tri-superfecta contest, or if the first tri-superfecta contest is declared "no contest," the entire tri-superfecta pool for that contest shall be refunded and the second-half pool shall be canceled.

(p) If the second tri-superfecta contest is canceled or declared "no contest" on a:

(1) non-designated mandatory payout performance, all exchange tickets and outstanding first-half winning tri-superfecta tickets shall be entitled to the net tri-superfecta pool for that contest as a single price pool, but not the tri-superfecta carryover. If there are no such tickets, the net tri-superfecta pool shall be carried forward to the next consecutive performance and combined with that performance's second-half tri-superfecta pool.

(2) designated mandatory payout performance, all exchange tickets and outstanding first-half winning tri-superfecta tickets as determined by subsection (s) of this section shall be entitled to the

net tri-superfecta pool for that contest and the tri- superfecta carry-over as a single price pool.

(q) A written request for permission to distribute the tri-superfecta carryover on a specific performance may be submitted to the executive secretary. The request must contain justification for the distribution, an explanation of the benefit to be derived, and the intended date and performance for the distribution.

(r) Notwithstanding subsections (f) and (t) of this section, on the last performance of a race meeting or on a designated mandatory payout performance, the following precedence will be followed in determining winning tickets for the second-half of the tri-superfecta:

(1) As a single price pool to those whose combination finished in correct sequence as the first four betting interests; but if there are no such wagers, then

(2) As a single price pool to those whose combination included, in correct sequence, the first three betting interests; but if there are no such wagers, then

(3) As a single price pool to those whose combination included, in correct sequence, the first two betting interests; but if there are no such wagers, then

(4) As a single price pool to those whose combination correctly selected the first-place betting interest; but if there are no such wagers, then

(5) As a single price pool to those whose combination included, in correct sequence, the second-place betting interests; but if there are no such wagers, then

(6) As a single price pool to those whose combination correctly selected the third-place betting interest; but if there are no such wagers, then

(7) As a single price pool to those whose combination correctly selected the fourth-place betting interest; but if there are no such wagers, then

(8) As a single price pool to holders of valid exchange tickets; but if there are no such persons, then

(9) As a single price pool to holders of outstanding first-half winning tickets.

(s) Distribution on mandatory payout.

(1) Notwithstanding subsections (e) and (t) of this section, on the last performance of a race meet or a designated mandatory payout performance, exchange tickets will be issued for those combinations selecting the greatest number of betting interests in the following order:

(A) As a single price pool to those whose combination finished in correct sequence as the first three betting interests; but if there are no such wagers, then

(B) As a single price pool to those whose combination included, in correct sequence, the first two betting interests; but if there are no such wagers, then

(C) As a single price pool to those whose combination included, in correct sequence, the first and third betting interests; but if there are no such wagers, then

(D) As a single price pool to those whose combination correctly selected the first-place betting interest; but if there are no such wagers, then

(E) As a single price pool to those whose combination included, in correct sequence, the second and third betting interests; but if there are no such wagers, then

(F) As a single price pool to those whose combination correctly selected the second-place betting interest; but if there are no such wagers, then

(G) As a single price pool to those whose combination correctly selected the third-place betting interest.

(2) Notwithstanding subsections (e) and (t) of this section, on the last performance of a race meet or a designated mandatory payout performance, if there are no wagers selecting the finishers in the order described in paragraph (1) of this subsection and there is a carryover, all first-half tickets are considered winners and the tri-superfecta pool for that contest and any existing tri-superfecta carryover shall be distributed equally among them.

(3) Notwithstanding subsections (e) and (t) of this section, on the last performance of a race meet or a designated mandatory payout performance, if there are no wagers selecting the finishers in the order described in paragraph (1) of this subsection and there is no carryover, the tri-superfecta contest shall be canceled and the entire tri-superfecta pool shall be refunded.

(t) Cap on carryover.

(1) The tri-superfecta carryover may be capped at a designated level approved by the executive secretary so that if, at the close of any performance, the amount in the tri-superfecta carryover equals or exceeds the designated cap, the tri-superfecta carryover will be frozen until it is won or distributed under other provisions of this section. After the tri-superfecta carryover is frozen, 50% of the tri-superfecta pool shall be distributed to winners of the first tri-superfecta contest using the following precedence:

(A) As a single price pool to those whose combination finished in correct sequence as the first three betting interests; but if there are no such wagers, then

(B) As a single price pool to those whose combination included, in correct sequence, the first two betting interests; but if there are no such wagers, then

(C) As a single price pool to those whose combination included, in correct sequence, the first and third betting interests; but if there are no such wagers, then

(D) As a single price pool to those whose combination correctly selected the first-place betting interest; but if there are no such wagers, then

(E) As a single price pool to those whose combination included, in correct sequence, the second and third betting interests; but if there are no such wagers, then

(F) As a single price pool to those whose combination correctly selected the second-place betting interest; but if there are no such wagers, then

(G) As a single price pool to those whose combination correctly selected the third-place betting interest; but if there are no such wagers, then

(H) the tri-superfecta contest shall be canceled and the entire tri-superfecta pool for that performance shall be refunded.

(2) After the tri-superfecta carryover is frozen, exchange tickets will be issued for tickets selecting the first four finishers of the second tri-superfecta contest. The second-half tri-superfecta pool shall be distributed according to the following precedence, based upon the official order of finish for the second tri-superfecta contest:

(A) As a single price pool, including any existing capped carryover moneys, to those whose combination finished in correct sequence as the first four betting interests; but if there are no such tickets, then

(B) The second-half tri-superfecta pool for that performance only shall be distributed in the following precedence:

(i) As a single price pool to those whose combination included, in correct sequence, the first three betting interests; but if there are no such wagers, then

(ii) As a single price pool to those whose combination included, in correct sequence, the first two betting interests; but if there are no such wagers, then

(iii) As a single price pool to those whose combination correctly selected the first-place betting interest; but if there are no such wagers, then

(iv) As a single price pool to those whose combination included, in correct sequence, the second-place betting interests; but if there are no such wagers, then

(v) As a single price pool to those whose combination correctly selected the third-place betting interest; but if there are no such wagers, then

(vi) As a single price pool to those whose combination correctly selected the fourth-place betting interest; but if there are no such wagers, then

(vii) As a single price pool to holders of valid exchange tickets; but if there are no such persons, then

(viii) As a single price pool to holders of outstanding first-half winning tickets.

(u) The tri-superfecta carryover shall be designated for mandatory payout on a specified date and performance only under the following circumstances:

(1) upon written approval from the executive secretary as provided in subsection (q) of this section.

(2) upon written approval from the executive secretary when there is a change in the carryover cap or when the tri-superfecta is discontinued; and

(3) on the closing performance of the meet or split meet.

(v) If, for any reason, the tri-superfecta carryover must be held over to the corresponding tri-superfecta pool of a subsequent meet, the carryover shall be deposited in an interest-bearing account approved by the executive secretary. The tri-superfecta carryover plus accrued interest shall then be added to the second-half tri-superfecta pool of the following meet on a date and performance so designated by the executive secretary.

(w) The association must obtain written approval from the executive secretary concerning the scheduling and the amount of any cap to be set on the carryover. Any changes to the approved tri-superfecta format require prior approval from the executive secretary.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706709

Paula C. Flowerday

General Counsel

Texas Racing Commission

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 833-6699

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16 TAC §321.112

The Texas Racing Commission proposes an amendment to §321.112, concerning the distribution of the pick (n) wagering pool. The amendment clarifies the distribution of the minor pool and the procedure for distributing the pool on mandatory payout days.

Paula C. Flowerday, General Counsel for the Texas Racing Commission, has determined that for the first five-year period the amendment is in effect there will be no fiscal implications for state or local government as a result of enforcing or administering the section as proposed.

Ms. Flowerday has also determined that for each of the first five years the amendment is in effect the public benefit anticipated as a result of enforcing the proposal will be that pari-mutuel wagering will be conducted with the utmost integrity. There will be no fiscal implications for small businesses. There are no anticipated economic costs to persons who are required to comply with the section as proposed.

Comments on the proposal may be submitted on or before August 1, 1997, to Paula C. Flowerday, General Counsel for the Texas Racing Commission, P.O. Box 12080, Austin, Texas 78711-2080.

The amendment is proposed under Texas Civil Statutes, Article 179e, §3.02, which authorize the commission to adopt rules for conducting racing with wagering and for administering the Texas Racing Act; and §11.01 which authorizes the Commission to adopt rules to strictly regulate pari-mutuel wagering.

The proposed amendment implements Texas Civil Statutes, Article 179e.

§321.112. *Pick (n).*

(a)-(f) (No change.)

(g) The pick (n) pool shall be distributed as provided by this section. The net pool in the pick (n) pool is divided into a major pool and a minor pool. The association may designate the major pool to consist of either 75% or 50% of the **net** [gross] amount wagered on the pick (n). The remaining percentage constitutes the minor pool. The association shall notify the executive secretary in writing before the beginning of each race meeting of its designation regarding the division between the major and minor pools. After designating

the division between the major and minor pools, an association may not change the division during a race meeting without prior written approval of the executive secretary.

(h) (No change.)

(i) **Except as otherwise provided by this section, the [The] minor pool shall be distributed to those ticket holders who failed to correctly designate the winner in each of the races comprising the pick (n), but who correctly selected the winners in the most, but not all of, the races comprising the pick (n)** [among holders of pick (n) tickets which correctly designate the most winners of the races comprising the pick (n).]

(j) If no ticket is sold that designates the winner in each of the races comprising the pick (n), the major pool shall be carried forward to the next performance to be paid in the major pool of that performance. Except as otherwise provided by this section, the major pool shall be supplemented each performance by the amount added to the pool from all previous performances' major pools that have not been won in accordance with subsection (h) of this section.

(k) [(j)] If a pick (n) ticket designates a selection and the selection is scratched, declared out, or prevented from racing, the favorite, as determined by the largest amount wagered in the win pool at the start of the race, will be substituted for the nonstarting selection for all purposes, including mutuel pool calculations and payoffs to the public. If there are two or more identical favorites in the win pool, both favorites will be substituted for the nonstarting selection.

(l) [(k)] If a race in the pick (n) ends in a dead heat for first place, all animals in the dead heat are winners for purposes of calculating the pick (n) pool.

(m) [(l)] Except as otherwise provided by this subsection, if one or more races in the pick (n) are canceled or declared as a "no race", **the amount contributed to the major pool for that performance shall be added to the minor pool for that performance and distributed as an extra amount in the minor pool to the holders of the tickets that designate the most winners in the remaining races. All contributions to the major pool from prior performances shall remain in the major pool, to be carried forward to the next performance to be paid in the major pool for that performance.** [the minor pool shall be distributed among the holders of the tickets that designate the most winners in the remaining races.] If the stewards or racing judges cancel or declare as a "no race" three or more of the races comprising a pick six, seven, or eight, four or more of the races comprising the pick nine, or five or more of the races comprising the pick 10, the pick (n) is canceled and the association shall refund all pick (n) tickets. A person may not win the major pool unless the person holds a pick (n) ticket that correctly designates the official winners of all the scheduled races comprising the pick (n) for that performance. **On the last performance of a race meeting or on a designated mandatory payout performance, if one or two races comprising the pick (n) are canceled or declared "no race", the major pool and the minor pool for that performance shall be combined with the prior performance major pool and be paid to those holders of tickets who correctly designated the most winners of the remaining races of the pick (n). If three or more races comprising the pick (n) are canceled or declared a "no race" the association shall refund all pick (n) tickets and the prior performance major pool shall be distributed in accordance with subsection (o) of this section.** [If one or more races comprising

the pick (n) is canceled or declared "no race", the amount contributed to the major pool for that performance shall be added to the minor pool for that performance and distributed as an extra amount. All contributions to the major pool from prior performances shall remain in the major pool, to be carried forward to the next performance to be paid in the major pool for that performance.]

(n) [(m)] If on the last performance of the race meeting **or on a designated mandatory payout performance** [at which the pick (n) is offered] the major pool is not distributable under subsection (h) of this section, the major pool and all money carried forward into that pool from previous performances shall be combined with the minor pool and distributed to the holders of tickets correctly designating the **most, but not all,** [most winning selections] of the races comprising the pick (n) for that performance. If a split race meeting is held, all major pools and minor pools shall be distributed in accordance with this section on the final performance of each portion of the split race meeting.

(o) [(n)] If for any reason the final **or designated mandatory payoff** performance is canceled or the major pool has not been distributed, the major pool shall be escrowed by the association, and the major pool, as well as all accrued interest, shall be carried over and included in a **major** [minor] pool offered on one of the first five days of the next subsequent race meeting **or on the next performance after the undistributed mandatory payout performance,** as approved by the executive secretary.

(p) [(o)] Except for refunds required by this section, a pick (n) ticket may not be sold, exchanged, or canceled after the close of wagering on the first of the pick (n) races.

(q) [(p)] A person may not disclose the number of tickets sold in the pick (n) pool or the number or amount of tickets selecting winners of the races comprising the pick (n) until the results of the last race comprising the pick (n) are official. The totalisator equipment shall be programmed or constructed to suppress the publication or printing of any such information, except the total number of dollars wagered in the pick (n), until the results of the last race comprising the pick (n) are official.

(r) [(q)] The association shall pay by certified check each payment from the pick (n) pool that exceeds \$100,000.

(s) [(r)] Before the first day of a race meeting, the association may elect to force an early payout of the major pool in accordance with this subsection by notifying the executive secretary in writing of its election. An early payout may be made only in accordance with this subsection. Not later than 24 hours after the amount of the major pool equals or exceeds the cap, the association shall designate a performance at which the early payout shall be made. The association shall immediately notify the executive secretary in writing of its designation. The designated performance must be held at least six days but less than 13 days after the day the amount of the major pool equals or exceeds the cap. If after the last race comprising the pick (n) of the designated performance the major pool has not been won, the amount in the major pool shall be added to the minor pool for the designated performance and distributed with the minor pool in accordance with this section.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706708

Paula C. Flowerday

General Counsel

Texas Racing Commission

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 833-6699

TITLE 22. EXAMINING BOARDS

Part V. State Board of Dental Examiners

Chapter 107. Dental Board Procedures

Procedures for Investigating Complaints

22 TAC §107.102

The State Board of Dental Examiners proposes amendment to §107.102, concerning procedures in conduct of investigations.

Douglas A. Beran, Executive Director, State Board of Dental Examiners, has determined that for the first five-year period the rule is in effect there will be no fiscal implications for state or local government as a result of enforcing the rule.

Mr. Beran also has determined that for each year of the first five years the rule is in effect the public benefit anticipated as a result of enforcing the rule will be that §107.102 (i) provides an additional level of review when a complainant objects to dismissal of a complaint by the Secretary of the State Board of Dental Examiners. On those cases, the Enforcement Committee, a standing committee, will review the case and determine the course of action.

There will be no effect on small and large businesses and on persons who are required to comply with the rule as proposed.

Comments on the proposed amended rule may be submitted to Mei Ling Clendennen, Executive Assistant, State Board of Dental Examiners, 333 Guadalupe, Tower 3, Suite 800, Austin, Texas 78701.

To be considered, all comments and requests for public hearing must be received by the State Board of Dental Examiners on or before July 6, 1997. All comments timely made will be considered and persons having positive comments are also encouraged to make them.

The amendment is proposed under Texas Government Code, §2001.021 et seq.; Texas Civil Statutes, Article 4551d which provides the State Board of Dental Examiners with the authority to adopt and promulgate rules consistent with the Dental Practice Act; and Article 4548h §1 which provides that the State Board of Dental Examiners may adopt rules relating to procedures in conduct of investigations.

The proposed amended rule does not affect other statutes, articles, or codes.

§107.102. *Procedures in Conduct of Investigations.*

(a)-(h) (No change.)

(i) The Director of Enforcement shall ensure that complaints are not dismissed or disposed until the investigative file has been reviewed by the Board Secretary or his/her designee. Upon completion

of the review, the Board Secretary or his/her designee may elect to close the case, refer the case to a settlement conference, refer the case for the imposition of an administrative penalty, or direct further investigative action. **On those cases in which the Board Secretary closes the case and the complainant objects to such closure and provides additional documentation to support his/her allegations, the investigative case shall be reviewed by at least three members of the Enforcement Committee to determine an appropriate course of action.**

(j)-(l) (No change.)

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 22, 1997.

TRD-9706772

Douglas A. Beran, Ph.D.

Executive Director

State Board of Dental Examiners

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 463-6400

TITLE 37. PUBLIC SAFETY AND CORRECTIONS

Part XIII. Texas Commission on Fire Protection

Chapter 435. Firefighter Safety

37 TAC §435.3

The Texas Commission on Fire Protection proposes an amendment to §435.3, concerning self-contained breathing apparatus. The amendment specifies the procedures to be used when conducting required monthly inspections of the respiratory protection unit. The amendment also specifies that breathing air samples for testing must be taken from the point where self-contained breathing air cylinders are connected for filling. The amendment has a proposed effective date of 20 days after filing for final adoption.

Mr. Anthony C. Calagna, Fire Protection Personnel Advisory Committee Chairman, has determined that for the first five year period the amended section is in effect there will be no fiscal implication for state and local governments.

Mr. Calagna also has determined that for each of the first five years the section is in effect the public benefit anticipated as a result of enforcing the sections will be that regulated fire departments will have a clearer understanding of the requirements and procedures for monthly inspections of SCBA equipment as well as the location for collecting breathing air samples for testing. There are no additional costs of compliance for small or large businesses or individuals required to comply with the section as amended. The commission has determined that the proposed amendment relating to fire fighter safety will have no impact on private real property interests and no takings impact assessment is required pursuant to the Government

Code, §2007.043(b) and §2.18 of the Attorney General's Private Real Property Rights Preservation Act Guidelines. There is no local employment impact resulting from the change.

Comments on the proposal may be submitted to: Gary L. Warren, Sr., Executive Director, Texas Commission on Fire Protection, P.O. Box 2286, Austin, Texas 78768-2286.

The amendments are proposed under Texas Government Code, §419.008, which provides the Texas Commission on Fire Protection with authority to propose rules for the administration of its powers and duties; and Texas Government Code, §419.041, which provides the commission with authority to adopt standards for self-contained breathing apparatus.

Texas Government Code, §419.041 is affected by the proposed amendments.

§435.3. Self-contained breathing apparatus.

The employing entity shall:

(1)-(2) (No change.)

(3) ensure that at least **monthly, inspections of respiratory protection equipment are conducted and include a check of the entire unit for deteriorated components, air tightness of cylinders and valves, gauge comparison, reducing valve and bypass valve operation, and check of the regulator, exhalation valve, and low-air alarm. The SCBA shall be cleaned and returned to service** [once in each 30-day period, each self-contained breathing apparatus is tested according to the daily/routine inspection procedures recommended by the National Fire Protection Association and identified in NFPA 1404, Fire Department Self-Contained Breathing Apparatus Program];

(4) (No change.)

(5) ensure that at least every six months, samples of the air used to fill the cylinders of self-contained breathing apparatus are tested by a [competent] testing laboratory which currently holds accreditation to test breathing air from a **nationally recognized** [nationally-recognized] accrediting organization. **Air samples shall be taken directly from the point where self-contained breathing apparatus cylinders are connected for filling. If a fill station has more than one port where a self-contained breathing apparatus cylinder can be attached and if only one sample is taken from the fill station, then the sample shall be taken from the port that ensures that all components of the fill station are tested.** It is "recommended" that the air used to fill cylinders of self-contained breathing apparatus be tested at least every three months.

(6)-(9) (No change.)

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 19, 1997.

TRD-9706595

Jack Woods

General Counsel

Texas Commission on Fire Protection

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 918-7189



TITLE 40. SOCIAL SERVICES AND ASSISTANCE

Part VI. Texas Commission for the Deaf and Hard of Hearing

Chapter 181. General Rules of Practice and Procedures

Subchapter A. General Provisions

40 TAC §181.3

The Texas Commission for the Deaf and Hard of Hearing proposes the amendment to §181.3. Definitions. This amendment is proposed to clarify and add terms used in policies and rules of the Commission.

David W. Myers, Executive Director, has determined that there will be no fiscal implication for state or local government as a result of the amendment of this section.

Mr. Myers also has determined that the public benefit anticipated as a result of this amendment will be an impact on the clarity of the rules of operation. There will be no effect on small businesses. There is no anticipated economic hardship to persons required to comply with the section as proposed.

Comments on this amendment may be submitted to Billy Collins, Texas Commission for the Deaf and Hard of Hearing, P.O. Box 12904, Austin, Texas 78711-2904.

The amendment is proposed under the Human Resources Code, §81.006(b)(3), which provides the Texas Commission for the Deaf and Hard of Hearing with the authority to adopt rules for administration and programs.

The proposed amendment affects Texas Administrative Code, Title 40, Chapter 181, Subchapter A, §181.3.

§181.3. Definitions.

The following words and terms, when used in the chapters, subchapters, or sections of the Texas Commission for the Deaf and Hard of Hearing, shall have the following meanings, unless the context clearly indicates otherwise.

Act-[Acts 1979, 66th Legislature, Chapters 186 and 690; Acts 1981, 67th Legislature, Chapters 140 and 566; Acts 1983, 68th Legislature, Chapter 403; Acts 1985, 69th Legislature, Chapter 619; Acts 1987, 70th Legislature, Chapters 343 and 172; and Acts 1989, 71st Legislature, Chapters 2, 183, 219, and 584] **Texas Human Resource Code, Chapter 81 and amendments.**

BEI-The Board of Evaluation of Interpreters.

Board-The Board of Evaluation of Interpreters.

Certificate-A license, issued by the board and commission which includes the whole part of any agency permit, certificate, approval, registration, charter, membership, statutory exemption, or similar form of permission required by state law.

Certification-The commission and board process respecting the grant, renewal, denial, revocation, suspension, annulment, withdrawal, limitation, amendment, modification or conditioning of a certificate.

Certified interpreter-An interpreter for the deaf who has been evaluated to determine a particular skill level or one who has met requirements or qualifications for a particular skill level and has been so certified to practice interpreting in the State of Texas by the board and commission, or other professional interpreting association.

Chairperson-The member of the commission so designated by the governor, pursuant to Texas Human Resources Code, §81.005.

Commission-The Texas Commission for the Deaf and Hard of Hearing.

Commissioner-Any one of the nine duly appointed members of the commission, including the chairperson.

Contract-Any written document (or series of documents) which obligates the commission to pay money to a person for goods or services rendered from that person, or which obligates the commission to provide goods or services to a person in exchange for money.

Contractor-An agency, organization, individual, or entity of any character representing the interests of the persons with which the commission contracts for implementation of services or programs or provisions of services to individuals who are deaf and **hard of hearing** [impaired].

Council-Agency, organization, or individual with which the Texas Commission for the Deaf and Hard of Hearing contracts for the provision of services to individuals deaf or hard of hearing.

Deaf or deaf persons-A natural person or individual who has a hearing impairment without regard to degree, and regardless of whether the person also has speech impairment, that such deafness or hearing impairment inhibits the person's comprehension of or communication with others.

Entity-An association, organization, governmental or business body, or existing body or class of persons that is chartered or organized for representing the interest of persons.

Executive Director-The chief administrative officer appointed by the commission to execute such duties, powers, and authority as may be conferred by the commission subject to the provisions of the Act or these rules.

Hard of Hearing or hard of hearing person-A natural person or individual who has a hearing impairment that results in a loss of hearing function but the individual relies on residual hearing and may depend on visual methods to communicate.

Person-Any person, partnership, corporation, association, governmental subdivision or agency, or public or private entity of any character.

Program-Commission activities designed to deliver or benefits provided by statute.

Qualified interpreter-A certified interpreter or an interpreter for the deaf whose qualifications have been approved by the commission.

Service provider-An entity or a person that is awarded a contract from the commission to provide services under a contract.

TCDHH-The Texas Commission for the Deaf and Hard of Hearing.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 20, 1997.

TRD-9706676

David W. Myers

Executive Director

Texas Commission for the Deaf and Hard of Hearing

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 451-8494



40 TAC §181.26

The Texas Commission for the Deaf and Hard of Hearing proposes an amendment to §181.26. Services for Deaf and Hearing-Impaired Individuals. This amendment is proposed to update the services available through the Commission.

David W. Myers, Executive Director, has determined that there will be no fiscal implication for state or local government as a result of the amendment of this section.

Mr. Myers also has determined that the public benefit anticipated as a result of this amendment will be an impact on the board's authority to enforce the rules of operation. There will be no effect on small businesses. There is no anticipated economic hardship to persons required to comply with the section as proposed.

Comments on this amendment may be submitted to Billy Collins, Texas Commission for the Deaf and Hard of Hearing, P.O. Box 12904, Austin, Texas 78711-2904.

The amendment is proposed under the Human Resources Code, §81.006(b)(3), which provides the Texas Commission for the Deaf and Hard of Hearing with the authority to adopt rules for administration and programs.

The proposed amendment affects Texas Administrative Code, Title 40, Chapter 181, Subchapter A, §181.26.

*§181.26. Services for Deaf and **Hard of Hearing**[-Impaired] Individuals.*

(a) Description of services. The Texas Commission for the Deaf and **Hard of Hearing** is responsible for developing and providing quality services to deaf and **hard of** hearing [-impaired] individuals through **contracts** [contracting] with agencies, organizations, or individuals, with assistance from the Texas Commission for the Deaf and **Hard of Hearing** office. These services include [interpreter] **communication access** services, [message relay services], **interpreter training**, information and referral services, [and] services to elderly deaf and **hard of hearing** persons, **hard of hearing services**, and **Camp SIGN**. It is the intent of the commission to establish programs and activities for the purpose of assisting deaf and **hard of hearing**[-impaired] persons in maintaining their independence and self-sufficiency.

(1) [Interpreter] **Communication access** services. The [interpreter] **communication access** services offered are designed to bridge the existing communication gap between deaf and **hard of** hearing [-impaired] individuals and the general [non-deaf] community. Through the provision of these services, deaf and **hard of** hearing [-impaired] individuals are better able to gain and maintain personal independence, improve their personal functioning, and obtain legal, medical, and economic services. **These services include interpreter**

services and Computer Assisted Real-time Transcription[ing] (CART).

(2) [Message relay services. Message relay services are designed to assist deaf and hearing-impaired individuals in gaining access to information or services by means of a telephone relay system implemented by an agency, individual, or organization contracted with by the commission. Many deaf persons have access to the message relay service provided he or she has his or her own telecommunication device for the deaf (TDD) with which to contact the contractor.] **Interpreter Training. Training at advanced levels is offered to interpreters to enable them to maintain present certification and to develop skills leading towards higher levels of certification. This training is offered through workshops and mentor projects.**

(3) Information and referral services. Under the information and referral activity, the contractor provides information to deaf **and hard of hearing** citizens regarding services and programs available [for the deaf. Information may be obtained when a contact occurs by either a phone call, a walk-in visit, or via correspondence.]

(4) Services to elderly **deaf or hard of hearing** persons. This activity of providing services to elderly **deaf or hard of hearing** persons has been designed and established to provide services to individuals who are, or who have recently become, deaf or **hard of hearing**[-impaired], and who are 60 years of age or older. Its primary objective is to aid individuals in maintaining or increasing self-sufficiency and to reduce the necessity of long-term care facility placement.

(5) **Hard of hearing services. Programs and services of the agency are to include individuals who are hard of hearing.**

(6) **Camp SIGN. This is an outdoor training program designed for children who are deaf or hard of hearing between the ages of 8 and 17.**

(b) Definitions. The following words and terms, when used in this section, shall have the following meanings, unless the context clearly indicates otherwise.

(1) Commission-Texas Commission for the Deaf **and Hard of Hearing.**

(2) Contractor-Agency, organization, or individual with which the Texas Commission for the Deaf **and Hard of Hearing** contracts for the provision of services to deaf and **hard of hearing**[-impaired] individuals.

(3) Deaf individual-Individual who is a Texas resident and has a significant hearing impairment which inhibits comprehension of proceedings or communication with others.

(4) **Hard of hearing individual- Individual who is a Texas resident and has a hearing impairment that results in a loss of hearing function but relies on residual hearing and may depend on visual methods to communicate.**

[(4)](5) Service provider-Person designated by the contractor to be responsible for work and/or supervision of work with deaf **and hard of hearing** clients.

(c) Eligibility for services. In order to be eligible for services, the deaf **or hard of hearing** individual must:

- (1) be a resident of the State of Texas; and

(2) have a significant hearing impairment which inhibits comprehension of proceedings or communication with others.

(d) Contract eligibility. An eligible contractor may be a public or private agency or organization, a non-profit or for-profit agency or organization, or any individual who is capable of delivering services through provision of the commission contract.

(e) Contracting procedures. The commission will prepare and publish guidelines requesting proposals for the establishment of programs and services for deaf and **hard of hearing**[-impaired] persons.

(f) Contractor Selection. The commission will review all timely submitted proposals, select, and contract with the contractor(s) which most nearly meet published guidelines and can provide such services with the amount of funding available.

(g) Program guidelines. Guidelines for delivery of services programs will provide assurances that each contractor will, as a minimum:

(1) be an agency, organization, or individual who is willing to provide a given service to its local deaf **and hard of hearing** community;

(2) provide a location and description of the intended headquarters to be used in the delivery of services;

(3) show an anticipated number of persons willing to utilize the services;

(4) be willing to cooperate with the commission regarding its goals, standards, requirements, and recommendations;

(5) be capable of selecting the area of services most needed within a fiscally conservative budget, and submit such budget to the commission for review;

(6) possess the necessary skills, knowledge, and expertise for the planning, development, and implementation of needed services;

(7) designate a service provider for the activity;

(8) utilize, to the highest degree possible, local, community, and state resources;

(9) furnish the commission with reports, as required, in the format prescribed by the commission; and

(10) establish and maintain a method to secure and maintain the confidentiality of records and services relating to clients in accordance with any and all applicable state and federal laws, rules and regulations.

(h) Proposal evaluation criteria. Proposals will be evaluated by the commission on the basis:

(1) submission of the proposal on or before the established deadline;

(2) operation of the program within commission authority;

(3) submission of proposal addressing all required areas;

(4) respondent's program plan;

(5) respondent's ability to provide a high-quality program aimed at meeting the individual needs of the client;

(6) letters of endorsement and/or cooperation; and

(7) ability to implement program upon receiving notification from the commission on award of contract.

(i) Reimbursement. Unit costs that the commission will reimburse contractor(s) for rendered services will be as follows:

(1) [Interpreter] **Communication access** services. The contractor will be reimbursed on a monthly basis for **approved and** appropriately billed [, approved interpreter] services.

(A) **Interpreter services. The contractor will be reimbursed** in accordance with the commission interpreter fee schedule. Finder's fees and administrative costs for services provided as a result of interpreter services will be reimbursable.

(B) **CART services. It is recommended that CART be provided only by those who are certified through Texas or the National Court Reporters' Association.**

[(2) Message relay services. The contractor will be reimbursed on a monthly basis for appropriately billed, approved logs for each message relay unit.]

[(3)](2) Information and referral services. The contractor will be reimbursed for each unit of recorded information and referral activity submitted to the commission and approved on a monthly basis.

[(4)](3) Services to elderly deaf persons. The contractor will be reimbursed **monthly** for administrative costs on [a monthly] **the** basis [at the award] of allocation.

(j) Contract awards and allocations. The commission will announce the contract awards [on or before August 1 of each odd-numbered] **at the last Commission meeting held before a new** fiscal year, with contractor services beginning on September 1. Contracts [will] **may** be awarded for two fiscal years, and [will] **may** include amendments for additional funds or reallocation of funds during the [two-year] contract period. Funding will be determined by the commission using a commission-approved formula in the distribution of monies among selected and approved contractors.

(1) **The distribution formula will be reviewed and approved by the Commission during each biennium.**

(2) **The distribution formula as approved by the Commission is the general population of each region as defined by HHSC multiplied by 8.8% which is the estimated population of individuals that are deaf and hard of hearing as defined by Gallaudet University. Appropriated funds are then multiplied by this same percentage to determine the total amount available to each region.**

(3) **Multiple contracts may be awarded in each region which outline specific areas of a region to be served.**

(4) **Multiple awards will have the same percentages applied to the amounts awarded based on the specific areas that are to be served by that award.**

(k) Conditions for termination of **contract** [services]. **A contract** [Services provided] may be terminated if the contractor fails to comply with the contract requirements.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706677

David W. Myers

Executive Director

Texas Commission for the Deaf and Hard of Hearing

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 451-8494



40 TAC §181.27

The Texas Commission for the Deaf and Hard of Hearing proposes an amendment to §181.27. Services for Elderly Deaf Individuals. This amendment is proposed to modify the requirements under this program.

David W. Myers, Executive Director, has determined that there will be no fiscal implication for state or local government as a result of the amendment of this section.

Mr. Myers also has determined that the public benefit anticipated as a result of this amendment will be an impact on the board's authority to enforce the rules of operation. There will be no effect on small businesses. There is no anticipated economic hardship to persons required to comply with the section as proposed.

Comments on this amendment may be submitted to Billy Collins, Texas Commission for the Deaf and Hard of Hearing, P.O. Box 12904, Austin, Texas 78711-2904.

The amendment is proposed under the Human Resources Code, §81.006(b)(3), which provides the Texas Commission for the Deaf and Hard of Hearing with the authority to adopt rules for administration and programs.

The proposed amendment affects Texas Administrative Code, Title 40, Chapter 181, Subchapter A, §181.27.

§181.27. Services for Elderly Deaf and Hard of Hearing Individuals.

(a) Description of Services. The Texas Commission for the Deaf **and Hard of Hearing** is responsible for developing and providing services for elderly deaf individuals in the State of Texas. These elderly deaf **and hard of hearing** programs provide for a wide array of services, and are generally provided through contracts with agencies, organizations, or individuals. It is the intent of the commission to establish elderly deaf **and hard of hearing** programs for the purpose of assisting elderly deaf **and hard of hearing** persons in maintaining their independence and self-sufficiency.

(b) Definitions. The following words and terms, when used in this section, shall have the following meanings, unless the context clearly indicates otherwise.

[(1) Commission-Texas Commission for the Deaf.

(2) Contractor-Agency, organization, or individual with which the Texas Commission for the Deaf contracts for the provision of services to elderly deaf individuals.]

[(3)](1) Coordinator/worker-Person designated by the contractor to be responsible for work and/or supervision of work with elderly deaf **and hard of hearing** clients.

[(4)](2) Elderly deaf **or hard of hearing** individual-Individuals who are Texas residents, are at least 60 years of age and have a significant hearing impairment which inhibits comprehension of proceedings or communication with others.

(c) Eligibility for services. In order to be eligible for services, the [elderly deaf] individual must[:] **be an elderly deaf or hard of hearing individual as defined in this rule.**

(1) be at least 60 years of age;

(2) be a resident of the State of Texas; and

(3) have a significant hearing impairment which inhibits comprehension of proceedings or communication with others.]

(d) Contracting procedures. The commission will prepare and publish guidelines requesting proposals for the establishment of programs and services for elderly deaf **or hard of hearing** persons.

(e) Contractor selection. The commission will review all timely submitted proposals, select, and contract with the agencies, organizations, or individuals who most nearly meet published guidelines and can provide such services with the amount of funding available.

(f) Program guidelines. Guidelines for elderly deaf **or hard of hearing** programs, will provide assurances that the contractor will, as a minimum:

(1) designate a coordinator/worker for the elderly deaf **or hard of hearing** program;

(2) provide for a comprehensive range of direct and indirect services to include, as a minimum;

(A) assessing each person's services needs and making appropriate referrals;

(B) providing assistance in personal, economic, and medical matters, personal adjustment, socialization, and transportation;

(C) developing an ongoing social program and/or working with existing social programs to include elderly deaf **and hard of hearing** persons;

(D) providing **services** [activities] which assist in activities of daily living;

(E) acting as liaison with other agencies serving the elderly to include the elderly deaf **and hard of hearing** in existing programs, and

(F) providing information and referral services to those agencies to help ensure appropriate service provision;

(3) utilize, to the highest degree possible, local, community, and state resources;

(4) help to ensure the health, safety, and well-being of clients participating in the program;

(5) furnish the commission with reports, as required, in the format prescribed by the commission; [and]

(6) establish and maintain a method to secure and maintain the confidentiality of record and services relating to clients in accordance with any and all applicable state and federal laws, rules, and regulations;and [.]

(7) **provide reports outlining that no more than 70% of the contracted funds are used for administration purposes and that at least 30% is utilized to provide program related activities to the clients.**

[(g) Conditions for termination of services. Services provided by the elderly deaf program may be terminated if:

(1) the elderly deaf client dies, moves out of state, or no longer desires the services and notifies the contractor; or

(2) the contractor fails to comply with contract requirements.]

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 20, 1997.

TRD-9706678

David W. Myers

Executive Director

Texas Commission for the Deaf and Hard of Hearing

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 451-8494

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40 TAC §181.41

(Editor's note: The text of the following section proposed for repeal will not be published. The section may be examined in the offices of the Texas Commission for the Deaf and Hard of Hearing or in the Texas Register office, Room 245, James Earl Rudder Building, 1019 Brazos Street, Austin.)

The Texas Commission for the Deaf and Hard of Hearing proposes the repeal to §181.41. Services for Deaf and Hearing-Impaired Individuals, concerning the placement of TDDs in selected state agencies and in emergency dispatch communication centers in selected units of local governments.

David W. Myers, Executive Director, has determined that there will be no fiscal implication for state or local government as a result of the repeal of this section. Mr. Myers has also determined that the public benefit anticipated as a result of this repeal will be the elimination of a rule which no longer authorizes placements. There will be no effect on small businesses. There is no anticipated economic hardship to persons required to comply with the section as proposed.

Comments on this repeal may be submitted to Billy Collins, Texas Commission for the Deaf and Hard of Hearing, P.O. Box 12904, Austin, Texas 78711-2904.

The repeal is proposed under the Human Resources Code, §81.006(b) (3), which provides the Texas Commission for the Deaf and Hard of Hearing with the authority to adopt rules for administration and programs.

The proposed repeal affects Texas Administrative Code, Title 40, Chapter 181, Subchapter A, §181.41.

§181.41. *Telecommunication Devices for the Deaf (TDD) Program.*

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706748

David W. Myers

Executive Director

Texas Commission for the Deaf and Hard of Hearing

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 451-8494

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40 TAC §181.810

(Editor's note: The text of the following section proposed for repeal will not be published. The section may be examined in the offices of the Texas Commission for the Deaf and Hard of Hearing or in the Texas Register office, Room 245, James Earl Rudder Building, 1019 Brazos Street, Austin.)

The Texas Commission for the Deaf and Hard of Hearing proposes the repeal to §181.810, concerning establishing prices for TCDHH publications.

David W. Myers, Executive Director, has determined that there will be no fiscal implication for state or local government as a result of the repeal of this section.

Mr. Myers also has determined that the public benefit anticipated as a result of this repeal will be the elimination of duplicate rules. There will be no effect on small businesses. There is no anticipated economic hardship to persons required to comply with the section as proposed.

Comments on this repeal may be submitted to Billy Collins, Texas Commission for the Deaf and Hard of Hearing, P.O. Box 12904, Austin, Texas 78711-2904.

The repeal is proposed under the Human Resources Code, §81.006(b)(3), which provides the Texas Commission for the Deaf and Hard of Hearing with the authority to adopt rules for administration and programs.

The proposed repeal affects Texas Administrative Code, Title 40, Chapter 181, Subchapter E, §181.810.

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§181.810. Publications.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706747

David W. Myers

Executive Director

Texas Commission for the Deaf and Hard of Hearing

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 451-8494

Subchapter F. Fees

40 TAC §181.830

The Texas Commission for the Deaf and Hard of Hearing proposes an amendment to §181.830. [Recommended] Fees Schedule for the Payment of [Certified] Interpreter[s] **Services** for the Deaf and Hard of Hearing. This amendment is proposed to clarify the issues of minimum assignment time, portal to portal calculation, cancellation of assignment pay and changes payment to interpreters to be payment to interpreter services.

David W. Myers, Executive Director, has determined that there will be no fiscal implication for state or local government as a result of the amendment of this section.

Mr. Myers also has determined that the public benefit anticipated as a result of this amendment will be a clearer understanding of interpreter services billing time. There will be no effect on small businesses. There is no anticipated economic hardship to persons required to comply with the section as proposed.

Comments on this amendment may be submitted to Billy Collins, Texas Commission for the Deaf and Hard of Hearing, P.O. Box 12904, Austin, Texas 78711-2904.

This amendment is proposed under the Human Resources Code, §81.006(b) (3), which provides the Texas Commission for the Deaf and Hard of Hearing with the authority to adopt rules for administration and programs.

The proposed amendment affects Texas Administrative Code, Title 40, Chapter 181, Subchapter F, §181.830.

§181.830. [Recommended] Fees Schedules for the Payment of [Certified] Interpreter[s] Services for the Deaf and Hard of Hearing.

(a) Fees. Under the authority of the Texas Code of Criminal Procedure, Article 38.31, and the Texas Human Resources Code, Chapter 81, 181.006(a) and (c), the Commission [recommends] **established** the following **maximum allowable** fees for the payment of [certified] interpreter[s] **services** for the deaf and hard of hearing which must be provided by law in proceedings of state agencies, courts, and political subdivisions. This fee schedule must be adhered to unless a superseding contractual arrangement exists between the employing entity and the [certified interpreter] **service provider**. For **the services of** a certified interpreter[, regardless of certification level,] the commission sets the following [recommended] **maximum** fees:

- (1) Scheduled Assignments \$30 per hour
- (2) Scheduled After-Hour, Weekend or Non-Scheduled (less than 24 hour notice) \$45 per hour
- (3) Emergency/Holiday \$60 per hour
- (4) Administrative costs of collection that are inclusive in those fees.
- (b) Minimum fee payment. The **services of a** certified interpreter[s] should be reimbursed a guaranteed two-hour minimum [for an assignment, plus travel] **with** time [which is] calculated portal to portal. [Should the assignment cancel before any travel is required, only the two hour minimum will apply.]
- (c) Other types of interpreting settings. Fees for interpreting **services** in settings, other than formal, governmental, civil, and

criminal proceedings, are applicable to [the] certified interpreter **services** for the deaf and hard of hearing who function[s] in a variety of settings including, but not limited to, health, vocational, educational, and welfare activities. [A certified interpreter functioning in these types of settings should be paid according to the fee schedule as indicated in this section.]

(d) After Hours/Weekend, Emergency/Holiday interpreting **service** fees.

(1) After Hours/Weekend Interpreting **service** fees should be paid in any situation which begins between the hours of 6:00 p.m. and 6:00 a.m., or on Saturday and Sunday.

(2) Emergency interpreting **service** situations within proceedings of state agencies, courts, and political subdivisions are defined as essential situations which are potentially life threatening or pose a threat to the clients' well-being during any time of the day or night. In this definition of emergency interpreting **service** situation, all interpreting **service** situations which can reasonably be delayed to allow adequate planning, or which can be planned for in advance and do not pose a special hardship for the [certified interpreters] **service provider** are not considered to be emergency interpreting **service** situations. Lateness in planning on the part of the consumer or client are not emergency situations as defined in this subsection. The designation "emergency interpreting **service** situation" is to be used prudently in view of its potential for abuse.

(3) Holiday fees are paid for any Federally observed holiday.

(e) Interpreting fees for services rendered to deaf-blind persons. It is recommended that interpreting services provided for persons who are deaf and blind be reimbursed according to the fee scales and policies in this section.

(f) Recommended practices in fee determination. The fees and related practices set forth throughout this section are the commission's recommendation issued pursuant to its statutory mandate. These recommendations do not serve to regulate other contractual fees paid to interpreters for the deaf in the State of Texas. Local, county, and state governmental units, as well as schools, agencies, and individuals, may negotiate contracts for fee arrangements with particular interpreters on an hourly, daily, weekly, monthly, or annual basis.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 16, 1997.

TRD-9706654

David W. Myers

Executive Director

Texas Commission for the Deaf and Hard of Hearing

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 451-8494

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40 TAC §181.840

(Editor's note: The text of the following section proposed for repeal will not be published. The section may be examined in the offices of the Texas Commission for the Deaf and Hard of Hearing or in the

Texas Register office, Room 245, James Earl Rudder Building, 1019 Brazos Street, Austin.)

The Texas Commission for the Deaf and Hard of Hearing is proposing the repeal of §181.840. Sliding Fee Scale for Interpreter Services, concerning the establishment of a sliding fee scale used for interpreter services that are provided in nonvovernmental settings and that are reimbursed by the Commission.

David W. Myers, Executive Director, has determined that there will be no fiscal implication for state or local government as a result of the repeal of this section. Mr. Myers has also determined that the public benefit anticipated as a result of this repeal will be the elimination of a rule which no longer has authority. There will be no effect on small businesses. There is no anticipated economic hardship to persons required to comply with the section as proposed.

Comments on this repeal may be submitted to Billy Collins, Texas Commission for the Deaf and Hard of Hearing, P.O. Box 12904, Austin, Texas 78711-2904.

The repeal is proposed under the Human Resources Code, §81.006(b) (3), which provides the Texas Commission for the Deaf and Hard of Hearing with the authority to adopt rules for administration and programs.

The proposed repeal affects Texas Administrative Code, Title 40, Chapter 181, Subchapter F, §181.840.

§181.840. Sliding Fee Scale for Interpreter Services.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706746

David W. Myers

Executive Director

Texas Commission for the Deaf and Hard of Hearing

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 451-8494

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Chapter 183. Board for Evaluation of Interpreters and Interpreter Certification

Subchapter B. Board of Certification Procedures

40 TAC §183.157

The Texas Commission for the Deaf and Hard of Hearing proposes an amendment to §183.157. Certification Procedures. This amendment is proposed to update current recertification procedures to require continuing education units for certification maintenance of interpreters licensed by the Commission and to promote increased levels of skill.

David W. Myers, Executive Director, has determined that there will be no fiscal implication for state or local government as a result of the amendment of this section.

Mr. Myers also has determined that the public benefit anticipated as a result of this amendment will be to promote continu-

ing education of all interpreters to ensure constant growth in the knowledge of the profession and skill building techniques necessary to upgrade certification levels. There will be no effect on small businesses. There is no anticipated economic hardship to persons required to comply with the section as proposed.

Comments on this amendment may be submitted to Angela Bryant, Board for Evaluation of Interpreters, Texas Commission for the Deaf and Hard of Hearing, P.O. Box 12904, Austin, Texas 78711-2904.

The amendment is proposed under the Human Resources Code, §81.006(b)(3), which provides the Texas Commission for the Deaf and Hard of Hearing with the authority to adopt rules for administration and programs.

The proposed amendment affects Texas Administrative Code, Title 40, Chapter 183, Subchapter B, §183.157.

§183.157. Recertification Process.

The commission has established the following [evaluation and experience] requirements for recertification. Either direct evaluation of **interpreting skills** or [experience requirements] **verification of training attendance** can be used for recertification.

(1) **Evaluation of interpreting skills**. A certificate holder **can** apply[ing] for recertification **by direct evaluation**. [or one who has expired reciprocal certification must complete the evaluation process within one year of application. Applicants will not be permitted to take a test given by the board at a lesser level than his or her current certificate level.]

(2) [Experience requirements] **Verification of training attended**. In lieu of evaluation, a certificate holder shall submit documentation [indicating] **of training attendance** [activity in the profession] within the last certification period **to indicate the following**:

(A) [proof of two years of board, agency, or organization service in the field of deafness; or] **Completion of 5.0 CEU's or equivalent in any professional or discipline[ary] training related to professional ethics, the field of interpreting, or standards of interpreting practice.**

(B) [proof of one year of employment in the field of interpreting; or] **Completion of 7.5 CEU's or equivalent in any professional or discipline[ary] training related to professional ethics, the field of interpreting, or standards of interpreting practice beginning in 2001.**

(C) [evaluator documentation of two separate evaluation sessions per year; or] **Completion of 10.0 CEU's or equivalent in any professional or discipline[ary] training related to professional ethics, the field of interpreting, or standards of interpreting practice beginning in 2003.**

[(D) completion of at least 5.0 CEUs or equivalent in any professional or disciplinary training that is related to professional ethics, field of interpreting, or standards of practice; or]

[(E) publication of articles or papers relating to the field of interpreting or other approved topics; or]

[(F) documentation of presentations made at professional conferences or seminars on interpreting or other approved topics.]

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 20, 1997.

TRD-9706675

David W. Myers

Executive Director

Texas Commission for the Deaf and Hard of Hearing

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 451-8494



Subchapter D. Denial, Suspension, or Revocation of a Certificate

40 TAC §183.501

The Texas Commission for the Deaf and Hard of Hearing is proposing the amendment of §183.501. Grounds for Denial, Suspension, or Revocation of an Interpreter Certificate or Interpreter Certification Application. This amendment is proposed to identify specific violations of the Board for Evaluation of Interpreters (BEI) rules and/or Principles of Ethical Behavior which will allow disciplinary action against interpreters who violate the rules as they are set forth.

David W. Myers, Executive Director, has determined that there will be no fiscal implication for state or local government as a result of the amendment of this section.

Mr. Myers has also determined that the public benefit anticipated as a result of this amendment will be an impact on the board's authority to enforce the rules of operation. There will be no effect on small businesses. There is no anticipated economic hardship to persons required to comply with the section as proposed.

Comments on this amendment may be submitted to Angela Bryant, Board for Evaluation of Interpreters, Texas Commission for the Deaf and Hard of Hearing, P.O. Box 12904, Austin, Texas 78711-2904.

The amendment is proposed under the Human Resources Code, §81.006(b)(3), which provides the Texas Commission for the Deaf and Hard of Hearing with the authority to adopt rules for administration and programs.

The proposed amendment affects Texas Administrative Code, Title 40, Chapter 183, Subchapter D, §183.501.

§183.501. Grounds for Denial, Suspension, or Revocation of an Interpreter Certificate or Interpreter Certification Application.

The Texas Commission for the Deaf and Hard of Hearing may deny application; suspend or revoke certification; or otherwise discipline, reprimand, or place on probation an interpreter for any of the following causes:

(1) conviction of a felony or any offense involving moral turpitude. In determining if the criminal conviction has a direct bearing on whether the interpreter or applicant should be entrusted to serve the public, the commission considers the particular facts and circumstances of each case to include evidence of those matters required by Texas Government Code 2001.001, et seq. The crimes

having such a direct bearing include criminal conduct of homicide, rape, sexual abuse, indecency with a child, injury to a child, aggravated assault, robbery, burglary, theft, forgery, bribery, perjury, and those relating to controlled substances;

(2) use **or under the influence** of drugs or intoxicating liquors to an extent that affects his or her professional competence. This includes: the use **or under the influence** of drugs or intoxicating liquors **during an interpreting assignment**, whether or not controlled, to an extent that is dangerous to the interpreter or applicant, or any other members of the public; the use **or under the influence** of drugs or intoxicating liquors **during an interpreting assignment**, to the extent that such use impairs the interpreter's or applicant's ability to perform the work of interpreting in a safe and responsible manner;

(3)-(4) (No change.)

(5) representing that the interpreter has a level of certification different from the actual level of certification awarded by the commission, **in excess of the actual level of certification**;

(6)-(11) (No change.)

(12) failure to meet requirements for certification maintenance; [or]

(13) engaging in the practice of interpreting while certification is suspended; **or**

(14) **falsification of re-certification documents by altering original letters, certificates issued through continuing education, or attendance verification.**

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 20, 1997.

TRD-9706674

David W. Myers

Executive Director

Texas Commission for the Deaf and Hard of Hearing

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 451-8494



40 TAC §183.511

The Texas Commission for the Deaf and Hard of Hearing is proposing the amendment of §183.511. Certification of Felons. This amendment is proposed to identify the need for persons who have been convicted of a Felony to be allowed to become employed in the profession of interpreting. Proof of rehabilitation is required before being allowed to pursue a career in this field.

David W. Myers, Executive Director, has determined that there will be no fiscal implication for state or local government as a result of the amendment of this section.

Mr. Myers also has determined that the public benefit anticipated as a result of this amendment will be an impact on the board's authority to enforce the rules of operation. There will be no effect on small businesses. There is no anticipated eco-

nomic hardship to persons required to comply with the section as proposed.

Comments on this amendment may be submitted to Angela Bryant, Board for Evaluation of Interpreters, Texas Commission for the Deaf and Hard of Hearing, P.O. Box 12904, Austin, Texas 78711-2904.

The amendment is proposed under the Human Resources Code, §81.006(b)(3), which provides the Texas Commission for the Deaf and Hard of Hearing with the authority to adopt rules for administration and programs.

The proposed amendment affects Texas Administrative Code, Title 40, Chapter 183, Subchapter D, §183.511.

§183.511. Certification of Felons.

(a) Refer to the [Administrative Procedure and Texas Register Act] [(Texas Civil Statutes, Article 6252-13c)].

(b) **Persons convicted of a felony may request TCDHH commission approval to make application to become a certified interpreter by providing a letter verifying the actual conviction(s), dates, probation, evidence of successful rehabilitation, and any other evidence the person wishes the commission to consider.**

(c) **If the criminal conviction is directly related to the profession of an interpreter, the commission shall consider:**

(1) **the nature and seriousness of the crime;**

(2) **the relationship of the crime to the purposes for requiring a certification or application to be an interpreter;**

(3) **the extent which a certificate or application might afford an opportunity to repeat the criminal activity in which the individual had been involved; and**

(4) **the relationship of the crime to the ability, capacity, or fitness required to perform the duties and discharge the responsibilities of an interpreter.**

(d) **In making a determination whether to allow application to become a certified interpreter, the commission shall consider the following evidence:**

(1) **the extent and nature of the person's past criminal activity;**

(2) **the age of the person at the time of the crime;**

(3) **the amount of time that has elapsed since the person's last criminal activity; (4) the conduct and work activity of the person prior to and following the criminal activity;**

(5) **evidence of the person's rehabilitation or rehabilitative effort while or following release;**

(6) **other evidence of the person's present fitness, including letters of recommendation from prosecution, law enforcement, and correctional officers who prosecuted, arrested, or had custodial responsibility for the person; the sheriff and chief of police in the community where the person resides; and any other person in contact with the convicted person.**

(e) **It shall be the responsibility of the applicant to the extent possible to secure and provide to the commission recommendations from the prosecution, law enforcement, and correctional authorities; the applicant shall also furnish proof in such form as may be required by the commission that he/**

she has maintained a record of good conduct and has paid all outstanding court costs, supervision fees, fines, and restitution as may have been ordered in all criminal cases in which he/she has been convicted.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Issued in Austin, Texas, on May 20, 1997.

TRD-9706673

David W. Myers

Executive Director

Texas Commission for the Deaf and Hard of Hearing

Earliest possible date of adoption: July 3, 1997

For further information, please call: (512) 451-8494



WITHDRAWN RULES

An agency may withdraw a proposed action or the remaining effectiveness of an emergency action by filing a notice of withdrawal with the *Texas Register*. The notice is effective immediately upon filing or 20 days after filing as specified by the agency withdrawing the action. If a proposal is not adopted or withdrawn within six months of the date of publication in the *Texas Register*, it will automatically be withdrawn by the office of the Texas Register and a notice of the withdrawal will appear in the *Texas Register*.

TITLE 25. HEALTH SERVICES

Part II. Texas Department of Mental Health and Mental Retardation

Chapter 402. Client Assignment and Continuity of Services

Subchapter I. Movement of Individuals with Mental Retardation from Department Facilities

25 TAC §402.319, §402.320

The Texas Department of Mental Health and Mental Retardation has withdrawn from consideration for permanent adoption the proposed new to §402.319 and §402.320, which appeared in the February 28, 1997, issue of the *Texas Register* (22 TexReg 2327).

Issued in Austin, Texas, on May 21, 1997.

TRD-9706702

Ann Utley

Chair, Texas MHMR Board

Texas Department of Mental Health and Mental Retardation

Effective date: May 21, 1997

For further information, please call: (512) 206-4516



TITLE 31. NATURAL RESOURCES AND CONSERVATION

Part XX. Edwards Aquifer Authority

Chapter 701. Filing and Processing of Permit Applications

Subchapter A. General Provisions

31 TAC §§701.1, 701.3-701.9

The Edwards Aquifer Authority has withdrawn from consideration for permanent adoption the proposed new and amended sections §701.1, 701.3-701.9, which appeared in the March 28, 1997, issue of the *Texas Register* (22 TexReg 3082).

Issued in Austin, Texas, on May 21, 1997.

TRD-9706738

Gregory M. Ellis

General Manager

Edwards Aquifer Authority

Effective date: May 21, 1997

For further information, please call: (210) 222-2204



Subchapter B. Declarations of Historical Use

31 TAC §701.15, §701.21

The Edwards Aquifer Authority has withdrawn from consideration for permanent adoption the proposed amendments to §701.15, §701.21, which appeared in the March 28, 1997, issue of the *Texas Register* (22 TexReg 3083).

Issued in Austin, Texas, on May 21, 1997.

TRD-9706737

Gregory M. Ellis

General Manager

Edwards Aquifer Authority

Effective date: May 21, 1997

For further information, please call: (210) 222-2204



31 TAC §§701.16-701.18

The Edwards Aquifer Authority has withdrawn from consideration for permanent adoption the proposed the repeals to §§701.16-701.18, which appeared in the March 28, 1997, issue of the *Texas Register* (22 TexReg 3084).

Issued in Austin, Texas, on May 21, 1997.

TRD-9706736

Gregory M. Ellis

General Manager

Edwards Aquifer Authority

Effective date: May 21, 1997

For further information, please call: (210) 222-2204



Subchapter C. Filing and Notices

31 TAC §701.31

The Edwards Aquifer Authority has withdrawn from consideration for permanent adoption the proposed a repeal to §701.31, which appeared in the March 28, 1997, issue of the *Texas Register* (22 TexReg 3084).

Issued in Austin, Texas, on May 21, 1997.

TRD-9706734

Gregory M. Ellis

General Manager

Edwards Aquifer Authority

Effective date: May 21, 1997

For further information, please call: (210) 222-2204

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31 TAC §701.34

The Edwards Aquifer Authority has withdrawn from consideration for permanent adoption the proposed an amendment to §701.34, which appeared in the March 28, 1997, issue of the *Texas Register* (22 TexReg 3085).

Issued in Austin, Texas, on May 21, 1997.

TRD-9706735

Gregory M. Ellis

General Manager

Edwards Aquifer Authority

Effective date: May 21, 1997

For further information, please call: (210) 222-2204

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Subchapter D. Administrative Review of Declarations of Historical Use

31 TAC §701.53, §701.55

The Edwards Aquifer Authority has withdrawn from consideration for permanent adoption the proposed amendments to §701.53, and §701.55, which appeared in the March 28, 1997, issue of the *Texas Register* (22 TexReg 3085).

Issued in Austin, Texas, on May 21, 1997.

TRD-9706733

Gregory M. Ellis

General Manager

Edwards Aquifer Authority

Effective date: May 21, 1997

For further information, please call: (210) 222-2204

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Subchapter E. Technical Review and Initial Determination of Declarations

31 TAC §§701.74-701.77

The Edwards Aquifer Authority has withdrawn from consideration for permanent adoption the proposed amendments to

§§701.74-701.77, which appeared in the March 28, 1997, issue of the *Texas Register* (22 TexReg 3085).

Issued in Austin, Texas, on May 21, 1997.

TRD-9706732

Gregory M. Ellis

General Manager

Edwards Aquifer Authority

Effective date: May 21, 1997

For further information, please call: (210) 222-2204

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Subchapter F. Initial Regular Permit Amounts and Terms

31 TAC §§701.92, 701.99, 701.100

The Edwards Aquifer Authority has withdrawn from consideration for permanent adoption the proposed amendments to §§701.92, 701.99, and 701.100, which appeared in the March 28, 1997, issue of the *Texas Register* (22 TexReg 3087).

Issued in Austin, Texas, on May 21, 1997.

TRD-9706731

Gregory M. Ellis

General Manager

Edwards Aquifer Authority

Effective date: May 21, 1997

For further information, please call: (210) 222-2204

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31 TAC §701.101

The Edwards Aquifer Authority has withdrawn from consideration for permanent adoption the proposed a repeal to §701.101, which appeared in the March 28, 1997, issue of the *Texas Register* (22 TexReg 3087).

Issued in Austin, Texas, on May 21, 1997.

TRD-9706730

Gregory M. Ellis

General Manager

Edwards Aquifer Authority

Effective date: May 21, 1997

For further information, please call: (210) 222-2204

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Subchapter G. Hearing Process

31 TAC §701.121

The Edwards Aquifer Authority has withdrawn from consideration for permanent adoption the proposed an amendment to §701.121, which appeared in the March 28, 1997, issue of the *Texas Register* (22 TexReg 3087).

Issued in Austin, Texas, on May 21, 1997.

TRD-9706729

Gregory M. Ellis

General Manager

Edwards Aquifer Authority

Effective date: May 21, 1997

For further information, please call: (210) 222-2204

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Subchapter H. Post Hearing Process

31 TAC §701.148

The Edwards Aquifer Authority has withdrawn from consideration for permanent adoption the proposed new §701.148, which appeared in the March 28, 1997, issue of the *Texas Register* (22 TexReg 3088).

Issued in Austin, Texas, on May 21, 1997.

TRD-9706728

Gregory M. Ellis

General Manager

Edwards Aquifer Authority

Effective date: May 21, 1997

For further information, please call: (210) 222-2204

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TEXAS DEPARTMENT OF INSURANCE

Notification Pursuant to the Insurance Code, Chapter 5, Subchapter L

As required by the Insurance Code, Article 5.96 and 5.97, the *Texas Register* publishes notice of proposed actions by the Texas Board of Insurance. Notice of action proposed under Article 5.96 must be published in the *Texas Register* not later than the 30th day before the board adopts the proposal. Notice of action proposed under Article 5.97 must be published in the *Texas Register* not later than the 10th day before the Board of Insurance adopts the proposal. The Administrative Procedure Act, the Government Code, Chapters 2001 and 2002, does not apply to board action under Articles 5.96 and 5.97.

The complete text of the proposal summarized here may be examined in the offices of the Texas Department of Insurance, 333 Guadalupe Street, Austin, Texas 78714-9104.)

This notification is made pursuant to the Insurance Code, Article 5.96, which exempts it from the requirements of the Administrative Procedure Act.

PROPOSED ACTION

The Commissioner of Insurance, at a public hearing under Docket Number 2295 scheduled for July 8, 1997 at 10:00 a.m. in Room 100 of the William P. Hobby Jr. State Office Building, 333 Guadalupe Street in Austin, Texas, will consider a proposal made in a staff petition. Staff's petition seeks amendment of the Texas Automobile Rules and Rating Manual (the Manual), Rule 14, to amend the plan for installments for premium payments for the Personal Auto Policy. Staff also proposes to amend the Texas Standard Provisions for Automobile Insurance Policies (the Standard Provisions), Personal Auto Policy, Special Instructions in regard to installment payments. Staff's petition (Reference Number A-0597-15-I) was filed on May 20, 1997.

Staff proposes to amend the Manual's Rule 14 to reduce the percentage of the down payment that is to be required by an insurer writing a Personal Auto Policy that is to be purchased under this rule's installment payment plan. Rule 14 currently allows an insurer to require a down payment of no more than 25% of the total premium for 12-month policies and 40% for 6-month policies. Staff proposes to amend Rule 14 to provide for a down payment of 12.5% of the total premium for a 12-month policy, or 25% of the total premium for a 6-month policy that is to be paid off under this rule's installment payment plan. For a 12 month policy, the down payment will consist of 1/12 of the total premium (first installment) plus an additional advance premium equal to 1/24 of the total premium (50% of the monthly installment). For a 6 month policy, the down payment will consist of 1/6 of the total premium (first installment) plus an additional advance premium equal to 1/12 of the total premium (50% of the monthly installment).

Staff proposes to amend the Standard Provisions, Personal Auto Policy, Special Instructions, by changing current #11 to #12, and by adding a new #11, titled "Installment Payment Plan" and providing as follows:

"Each insurance company must either print on, stamp on, or attach to the declarations page the following statement: 'We agree to make available to you an installment payment plan as described in Rule 14

of the Texas Automobile Rules and Rating Manual, except when an installment payment plan is prohibited by rule or statute.' "

The affordability of personal automobile insurance causes many consumers to choose not to purchase such insurance. Some consumers have difficulty making the down payments for the Personal Auto Policy as set forth in the current installment payment plan in Manual Rule 14, which requires the down payment to be 40% of the total premium for a 6-month policy and 25% of the total premium for a 12-month policy. One way to address the increasing number of uninsured motorists, particularly those uninsured motorists willing to purchase insurance, but who cannot afford the down payment, is to provide a payment plan with a more favorable down payment. Staff's recommendation will provide that an insurer using this plan shall require a down payment of 12.5% of the total premium for a 12-month policy or 25% for a 6-month policy. The remaining payments would pay off the balance in equal monthly installments and allow the insurer to maintain an additional advance premium of 1/24 of the total premium for 12-month policies and 1/12 of the total premium for 6-month policies. As previously mentioned, Rule 14 currently allows a 25% down payment for 12-month policies and 40% for 6-month policies.

Under Staff's proposal, the additional advance premium should virtually eliminate the need for any further down payments to be made by the insured upon the renewal of a policy and may provide protection to an insurer in the event of a cancellation caused by inadvertent nonpayment of an installment when due. In the event an installment is not paid when due, an additional advance premium may be applied to the insured's account on a pro-rata basis. In other words, at the insurer's option, coverage may be extended until the full amount of the deposit is depleted. By allowing an additional advance premium to be applied on a pro-rata basis, both the insured and the insurer may benefit. The insured may benefit by having continuous coverage for the period of time provided by application of the additional advance premium. The insurer may benefit by having time to ascertain that the installment has not been paid, to mail a cancellation notice, and to avoid providing a period of coverage without paid premium.

Under Staff's recommendation, insurers would continue being allowed to offer other payment options to a new applicant in addition to the Rule 14 plan, but the proposed plan must be made available to each new applicant except when an installment payment plan is prohibited by rule or statute. It appears likely that more applicants will choose the plan under Rule 14, if amended as proposed, for that plan will clearly be more affordable than Rule 14's current plan.

The recommendation to amend the Special Instructions for the Personal Auto Policy, will assist insurers in complying with the existing requirement set forth in the order that created Rule 14 (Board Order Number 59537, issued April 13, 1992). On page 3 of that order appears the requirement, "The Policy shall include the following statement: 'We agree to make available to you an installment payment plan as described in the Texas Automobile Rules and Rating Manual.' " Board Order Number 59537 did not give any further guidance on how to incorporate the required language into the policy, resulting in some confusion on this issue, but that problem can be eliminated by Staff's proposal.

The requirement of placing the above statement into the policy was to ensure that county mutual insurers offer the installment plan contained in Manual Rule 14. The Board in adopting Board Order Number 59537 clearly intended that the payment plan under Rule 14 apply to county mutual insurers, and placed the requirement in the policy form to which county mutual insurers are subject pursuant to the Insurance Code, Article 5.06 and Article 17.25, Section 5. Article 5.06, with certain exceptions, prohibits motor vehicle insurers from using policy forms other than those adopted by the Commissioner (or formerly by the Board of Insurance). Additionally, the tape recording of the January 15, 1992 meeting of the Board confirms that county mutual companies are subject to Board Order Number 59537, and that they must offer the Rule 14 installment payment plan. That requirement will be more clearly implemented by Staff's proposal to amend the Standard Provisions as set forth above.

Staff further proposes that the required policy language be amended by addition of "except when an installment payment plan is prohibited

by rule or statute." This amendment is necessary due to passage of HB 627, amending Transportation Code Section 601.083, requiring a certified policy to be issued for at least a period of six months and paid in full.

A copy of the petition containing the full text of the proposed amendments to the Manual is available for review in the office of the Chief Clerk of the Texas Department of Insurance, 333 Guadalupe Street, Austin, Texas. For further information or to request copies of the petition, please contact Angie Arizpe at (512) 463-6326; refer to (Reference Number A-0597-15-I).

Comments on the proposed changes must be submitted in writing within 30 days after publication of the proposal in the Texas Register, to the Office of the Chief Clerk, Texas Department of Insurance, P. O. Box 149104, MC 113-2A, Austin, Texas 78714-9104. An additional copy of comments is to be submitted to David Durden, Deputy Commissioner, Property and Casualty Insurance Lines, Texas Department of Insurance, P. O. Box 149104, MC 104-5A, Austin, Texas 78714-9104.

This notification is made pursuant to the Insurance Code, Article 5.96, which exempts it from the requirements of the Government Code, Chapter 2001 (Administrative Procedure Act).

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be a valid exercise of the agency's authority.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706757

Caroline Scott

General Counsel and Chief Clerk

Texas Department of Insurance

Filed: May 21, 1997

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OPEN MEETINGS

Agencies with statewide jurisdiction must give at least seven days notice before an impending meeting. Institutions of higher education or political subdivisions covering all or part of four or more counties (regional agencies) must post notice at least 72 hours before a scheduled meeting time. Some notices may be received too late to be published before the meeting is held, but all notices are published in the ***Texas Register***.

Emergency meetings and agendas. Any of the governmental entities listed above must have notice of an emergency meeting, an emergency revision to an agenda, and the reason for such emergency posted for at least two hours before the meeting is convened. All emergency meeting notices filed by governmental agencies will be published.

Posting of open meeting notices. All notices are posted on the bulletin board at the main office of the Secretary of State in lobby of the James Earl Rudder Building, 1019 Brazos, Austin. These notices may contain a more detailed agenda than what is published in the ***Texas Register***.

Meeting Accessibility. Under the Americans with Disabilities Act, an individual with a disability must have an equal opportunity for effective communication and participation in public meetings. Upon request, agencies must provide auxiliary aids and services, such as interpreters for the deaf and hearing impaired, readers, large print or braille documents. In determining type of auxiliary aid or service, agencies must give primary consideration to the individual's request. Those requesting auxiliary aids or services should notify the contact person listed on the meeting summary several days prior to the meeting by mail, telephone, or RELAY Texas (1-800-735-2989).

Texas Department of Agriculture

Thursday, June 5, 1997, 10:00 a.m.

Harris County Extension Center, Two Abercrombie Drive
Houston

Texas Rice Producers Board

AGENDA:

Call to Order

Approve Minutes to Previous Meeting

Discussion and Action: Financial Report of Current Fiscal Year, Texas Rice Administration Office, Review Current Budget and Make Adjustments, if necessary; Review 1997 Crop Outlook; Update on 1997 Biennial Election.

Discussion: Other Business

Adjourn

Contact: Mr. Curtis Leonhardt, P.O. Box 740250, Houston, Texas 77274, 1-800-888-7423.

Filed: May 21, 1997, 11:21 a.m.

TRD-9706706

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Wednesday, June 11, 1997, 10:30 a.m.

Board Room, Texas Sheep and Goat Raisers, 233 West Twohig
San Angelo

Texas Sheep and Goat Commodity Board

AGENDA:

Opening Remarks and Welcome

Review and approval on minutes of last meeting- April 9, 1997

Review and approval of Fiscal Affairs

Reports of Officers and Directors

Discussion and Action: New Business: Review of telephone messages; Hot Spots Annual Reports/Renewal Requests; Addition to Hot-Spots; Committee on pro's and con's of bounties; Scheduling of next meeting, Unfinished Business-Review status of Texas Animal Health Audit; Predators in the Classroom Report; Report from Gary Nunley-Animal Damage Control.

Discussion: Other Business

Adjourn

Contact: Minnie Savage, 233 West Twohig, San Angelo, Texas 76902-3543, (915) 659-8777.

Filed: May 27, 1997, 9:26 a.m.

TRD-9706878

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Texas Animal Health Commission

Tuesday, June 3, 1997, 10:30 a.m.

University Drive/Raymond Stoltzer Parkway, Suite 101 Dean's Office, Mark Francis Room 101A VMA, Veterinary Medicine Administration Building 1026, Texas A&M University

College Station

TAHC Commission

AGENDA:

I. Welcome

II. Presentation

III. Executive Director Report

IV. Legislative Update

V. EIA Ad Hoc Committee Meeting Review and Possible Action on Items

VI. Advisory Committee on TB and White-Tailed Deer Review and Possible Action on Items

VII. Selection Committee Review and Possible Action on Items

IX. Executive Session (Closed meeting)

X. Proposals for Consideration and Possible Action

XI. Adoptions for Consideration and Possible Action

XII. Conclusions

Contact: Tiffany Norvell, P.O. Box 12966, Austin, Texas, 78711-2966, (512) 719-0714.

Filed: May 23, 1997, 4:54 p.m.

TRD-9706870



Tuesday, June 3, 1997, 10:30 a.m.

University Drive/Raymond Stoltzer Parkway, Suite 101 Dean's Office, Dean's Conference Room 101B VMA, Veterinary Medicine Administration Building 1026, Texas A&M University

College Station

Selection Committee

AGENDA:

I. Discussion and Possible action on interim agency structure

II. Discussion and Possible action on Executive Director and State Veterinarian positions.

Contact: Tiffany Norvell, P.O. Box 12966, Austin, Texas, 78711-2966, (512) 719-0714.

Filed: May 23, 1997, 4:55 p.m.

TRD-9706871



Tuesday, June 3, 1997, 10:30 a.m.

University Drive/Raymond Stoltzer Parkway, Suite 101 Dean's Office, Mark Francis Room 101A VMA, Veterinary Medicine Administration Building 1026, Texas A&M University

College Station

Oversight Committee

AGENDA:

I. Discussion and Possible action on agency budget issues

II. Discussion and Possible action on agency equipment issues

III. Discussion and Possible action on agency personnel issues

IV. Discussion and Possible action on prioritization of MRT Report

Contact: Tiffany Norvell, P.O. Box 12966, Austin, Texas, 78711-2966, (512) 719-0714.

Filed: May 23, 1997, 5:19 p.m.

TRD-9706873



Daughters of the Republic of Texas

Thursday, Friday, June 5-6, 1997, 8:30 a.m.

Menger Hotel, Patio Room, 204 Alamo Plaza

San Antonio

Board of Management

AGENDA:

The Daughters of the Republic of Texas, Inc., exercising an overabundance of caution, hereby notice a portion of the Board of Management meeting as an open meeting under the Texas Open Meeting Act with regard to all matters pertaining to State owned properties which are under the management or control of D.R.T., Inc.

Thursday, June 5, 1997, we start at 8:30- Closed Session all day

Friday, June 6, 1997, 8:30 a.m. — Open Session; Determination of Quorum, Reports or discussion preview to reports of Committees operating State owned properties which are under the management or Control of DRT, Inc. Alamo Committee, DRT Library Committee, French Legation. Closed/Executive Session — Determination of Quorum. Recess Noon.

Contact: Tookie Dempsey Walthall, 112 Moss Drive, San Antonio, 78213-1916, (210) 344-4046.

Filed: May 21, 1997, 2:15 p.m.

TRD-9706722



Texas Education Agency

Monday, June 9, 1997, 10:00 a.m.

Room 1.104, William B. Travis Building, 1701 North Congress Avenue

Austin

Policy Committee on Public Education Information (PCPEI)

AGENDA:

1. Call to Order

2. OLD BUSINESS — Review of Minutes from March 3, 1997 PCPEI meeting Texas Education Agency Information Systems News

3. NEW BUSINESS — Information Task Force (ITF) Activities; Legislative Session Summary; Technology in Education (TIE) grants and the Universal Service Issues

4. Open Forum

Contact: Nancy Vaughn, 1701 North Congress Avenue, Austin, Texas (512) 463-8110.

Filed: May 23, 1997, 8:01 a.m.

TRD-9706815



Thursday, June 12, 1997, 9:00 a.m.

Room 1.104, William B. Travis Building, 1701 North Congress Avenue

Austin

State Board of Education (SBOE) Committee of the Whole

AGENDA:

Work session to discuss the Long-Term Asset Allocation Plan of the Permanent School Fund; Discussion of Proposed New 19 TAC Chapters 110, 111, 112, 113, 115, 116, 118, 128, Texas Essential Knowledge and Skills. The SBOE Committee of the Whole will

hold public hearing, beginning at 1:00 p.m. to hear testimony on the proposed new 19 TAC Chapters 110, 111, 112, 113, 115, 116, 118, 128, Texas Essential Knowledge and Skills. Anyone wishing to make a presentation to the committee must register no later than 5:00 p.m. Central Standard Time on Monday, June 9, 1997 by calling the Division of Curriculum and Professional Development at (512) 463-9581. Written comments, sent to the attention of Cynthia Levinson, will also be accepted by the June 9 deadline. Please provide 25 copies of written comments for distribution to board members. In order to accommodate as many speakers as possible and to ensure a balance in testimony, there will be a three-minute limit for each presentation. Professional organizations are requested to name one representative to speak on behalf of the membership. The text of the proposed rules may be accessed on the Texas Education Agency Work Wide Web site at <http://www.tea.state.tx.us/sboe/rules/proposed/index.html>. Questions about the proposed rules should be directed to Cynthia Levinson in the division of Curriculum and Professional Development at (512) 463-9581.

Contact: Criss Cloudt, 1701 North Congress Avenue, Austin, Texas (512) 463-9701.

Filed: May 27, 1997, 9:44 a.m.

TRD-9706882



Advisory Commission on State Emergency Communications

Friday, May 30, 1997, 10:00 a.m.

333 Guadalupe Street, Room 1250A

Austin

Executive Committee

REVISED AGENDA:

The Committee will call the Meeting to Order and Recognize Guests; Hear Public Comment; Hear Reports, Discuss and take Committee Action, as Necessary: Review of Councils of Governments for Possible Reallocation of Funds-East Texas Council of Governments, Nortex Regional Planning Commission, Rio Grande Council of Governments, Deep East Texas Council of Governments, Middle Rio Grande Development Council, Panhandle Regional Planning Commission, Texoma Council of Governments, Permian Basin Regional Planning Commission; Review and Consider Status of Statewide Managed Database and Network Project; Review and Consider Pending Agency Sunset Process.

Persons requesting interpreter services for the hearing-and speech impaired should contact Velia Williams at (512) 305-6933 at least two working days prior to the meeting.

Contact: Velia Williams, ACSEC, 333 Guadalupe Street, Austin, Texas 78701, (512) 305-6933.

Filed: May 21, 1997, 2:50 p.m.

TRD-9706725



Texas Commission on Fire Protection

Saturday, June 7, 1997, 9:00 a.m.

12675 North Research

Austin

Volunteer Fire Fighter Advisory Committee

AGENDA:

1. Discussion and approval of minutes from the meeting held on March 15, 1997.
2. Tribute to former committee member Dayne Hill.
3. Reports from staff on the status of revisions to National Fire Protection Association Standards
4. Report on International Fire Service Accreditation Congress Meeting in Columbia, South Carolina.
5. Discussion and possible action on rule amendments relating to testing and certification for completion of a portion or phase of the basic fire suppression curriculum for volunteer fire fighters.
6. Discussion and possible action on rule amendments to 37 TAC Chapter 477.
7. Discussion and possible action on rule amendments to 37 TAC Chapter 479.
8. Discussion and possible action on rule amendments to 37 TAC Chapter 481.
9. Discussion and possible action on changes to the basic fire suppression curriculum for volunteer fire fighters.
10. Discussion and possible action concerning possible need for amendments resulting from new legislation relating to Government Code, Chapter 419.
11. New matters from committee members and the public which may be placed on the agenda for future committee meeting.
12. Discussion and possible action on future meeting dates, times and agenda items.

Contact: Carol Menchu, 12675 North Research, Austin, Texas 78759, (512) 918-7100.

Filed: May 23, 1997, 9:54 a.m.

TRD-9706819



Thursday, Friday, June 19-20, 1997, 9:00 a.m.

12675 North Research

Austin

Fire Protection Personnel Advisory Committee

AGENDA:

1. Discussion and approval of minutes from the meeting held on March 20 and 21, 1997.
2. Overview and staff briefing of agenda items.
3. Reports from staff on the status of revisions to National Fire Protection Association Standards
4. Report on International Fire Service Accreditation Congress Meeting in Columbia, South Carolina.
5. Discussion and possible action on rule amendments to 37 TAC Chapter 427.

6. Discussion and possible action on rule amendments to 37 TAC Chapter 435.

7. Discussion only relating to 37 TAC Chapter 437.

8. Discussion and possible action on 37 TAC Chapter 439, concerning examinations

9. Discussion and possible action on rule amendments to 37 TAC Chapter 441.

10. Discussion and possible action on proposed new 37 TAC Chapter 453.

11. Discussion only regarding granting credit for National Fire Sprinkler Association course in order to meet requirements for high levels of certification for all disciplines of fire protection personnel.

12. Report of Testing Committee with discussion and possible action on recommendations.

13. Discussion and possible action concerning possible need for amendments resulting from new legislation.

14. New matters from committee members and the public to be placed on future meeting agenda.

15. Discussion and possible action on future meeting dates, agenda items, and locations.

Contact: Carol Menchu, 12675 North Research, Austin, Texas 78759, (512) 918-7100.

Filed: May 23, 1997, 9:55 a.m.

TRD-9706820

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Fire Fighters' Pension Commission

Thursday, June 5, 1997, 8:45 a.m. and 3:45 p.m.; Friday, June 6, 1997, 8:30 a.m.

E.O. Thompson Building, 920 Colorado, Fourth Floor Board Room
Austin

Administrative Division

AGENDA:

Interviews of prospective Consultants and Investment Managers; Board Committee Meetings; Reports from Consultant, Actuary and Accountant; Reports from Investment, Actuary and Consultant Committees; State Auditors Report; Staff Reports. Review and selection of Consultant and Large Cap Growth Manager; Adoption of Board Policy on Contracts; and Adoption of Changes in Rules and Regulations.

Contact: Helen L. Campbell, P.O. Box 12577, Austin, Texas 78711, (512) 936-3372.

Filed: May 22, 1997, 9:39 a.m.

TRD-9706770

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Texas Department of Health (TDH)

Thursday, May 29, 1997, 10:00 a.m.

San Jacinto Center, 98 San Jacinto Boulevard, Suite 440
Austin

Texas Board of Health Search Firm Committee

AGENDA:

The committee will discuss and possibly act on: approving the minutes of the April 24, May 12 and May 13, 1997, meetings. The committee will then meet in executive session to deliberate the appointment of the Commissioner of Health through interviews of applicants.

To request an accommodation under the ADA, please contact Suzzanna Currier, ADA Coordinator in the Office of Civil Rights at (512) 458-7627 or TDD at (512) 458-7708 at least two prior to the meeting.

Contact: Kris Lloyd, 1100 West 49th Street, Austin, Texas 78756, (512) 458-7484.

Filed: May 21, 1997, 3:29 p.m.

TRD-9706741

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Thursday, May 29, 1997, 3:30 p.m.

Moreton Building, Room M-739, Texas Department of Health, 1100 West 49th Street

Austin

Texas Board of Health Regulatory Committee

AGENDA:

The committee will discuss and possibly act on: approving the minutes of the April 24, 1997 meeting; final adoption of rules concerning licensure of medical physicists; final adoption of rules concerning certification of respiratory care practitioners; and proposed rules concerning licensure and regulation of fitters and dispensers of hearing instruments.

To request an accommodation under the ADA, please contact Suzzanna Currier, ADA Coordinator in the Office of Civil Rights at (512) 458-7627 or TDD at (512) 458-7708 at least two prior to the meeting.

Contact: Kris Lloyd, 1100 West 49th Street, Austin, Texas 78756, (512) 458-7484.

Filed: May 21, 1997, 3:29 p.m.

TRD-9706740

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Thursday, May 29, 1997, 4:00 p.m.

Moreton Building, Room M-739, Texas Department of Health, 1100 West 49th Street

Austin

Texas Board of Health Strategic Management Committee

AGENDA:

The committee will discuss and possibly act on: approving the minutes of the April 24, 1997 meeting; internal audit update; legislative update; congressional update; monthly financial report (historically underutilized businesses; contract leverage team implementation; new laboratory; and monthly financial update). The committee will meet in executive session regarding the pending litigation of Frew et.al.

relating to provision of services in the Early Periodic Screening and Diagnostic Testing (EPSDT) Medicaid Program.

To request an accommodation under the ADA, please contact Suzzanna Currier, ADA Coordinator in the Office of Civil Rights at (512) 458-7627 or TDD at (512) 458-7708 at least two prior to the meeting.

Contact: Kris Lloyd, 1100 West 49th Street, Austin, Texas 78756, (512) 458-7484.

Filed: May 21, 1997, 2:56 p.m.

TRD-9706726

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Thursday, May 29, 1997, 5:00 p.m.

Moreton Building, Room M-739, Texas Department of Health, 1100 West 49th Street

Austin

Texas Board of Health-Health and Clinical Services Committee

AGENDA:

The committee will discuss and possibly act on: approving the minutes of the March 20, 1997 meeting; final adoption of rules concerning documentation requirements, complaint procedures, and educational requirements for midwives; proposed rules concerning sexually transmitted diseases (STD), including, acquired deficiency syndrome (AIDS) and human immunodeficiency virus (HIV); and recommendation to the State Medicaid Director concerning proposed rules for Early Periodic Screening and Diagnostic testing (TPSDT)-Texas Health Steps Medical Case Management.

To request an accommodation under the ADA, please contact Suzzanna Currier, ADA Coordinator in the Office of Civil Rights at (512) 458-7627 or TDD at (512) 458-7708 at least two prior to the meeting.

Contact: Kris Lloyd, 1100 West 49th Street, Austin, Texas 78756, (512) 458-7484.

Filed: May 21, 1997, 3:38 p.m.

TRD-9706745

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Friday, May 30, 1997, 8:30 a.m.

Moreton Building, Room M-739, Texas Department of Health, 1100 West 49th Street

Austin

Texas Board of Health-Board Briefing Meeting

AGENDA:

The committee will discuss and possibly act on: a briefing by the Commissioner on current activities of the Texas Department of Health; and procedural and/or administrative issues of the Board of Health.

To request an accommodation under the ADA, please contact Suzzanna Currier, ADA Coordinator in the Office of Civil Rights at (512) 458-7627 or TDD at (512) 458-7708 at least two prior to the meeting.

Contact: Kris Lloyd, 1100 West 49th Street, Austin, Texas 78756, (512) 458-7484.

Filed: May 21, 1997, 3:29 p.m.

TRD-9706743

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Friday, May 30, 1997, 10:00 a.m.

Moreton Building, Room M-739, Texas Department of Health, 1100 West 49th Street

Austin

Texas Board of Health-Human Resources Committee

AGENDA:

The committee will discuss and possibly act on: approval of the Minutes of the April 24, 1997 meeting; and appointments to the Family Planning Advisory Council.

To request an accommodation under the ADA, please contact Suzzanna Currier, ADA Coordinator in the Office of Civil Rights at (512) 458-7627 or TDD at (512) 458-7708 at least two prior to the meeting.

Contact: Kris Lloyd, 1100 West 49th Street, Austin, Texas 78756, (512) 458-7484.

Filed: May 21, 1997, 3:29 p.m.

TRD-9706742

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Friday, May 30, 1997, 10:30 a.m.

Moreton Building, Room M-739, Texas Department of Health, 1100 West 49th Street

Austin

Texas Board of Health-Health Financing Committee

AGENDA:

The committee will discuss and possibly act on: approval of the Minutes of the April 24, 1997 meeting. The committee will go into executive session to discuss pending litigation (Texas Pharmacy Association, et. al vs. Texas Department of Health concerning reimbursement rates for pharmacy services in the Medicaid vendor drug program). The committee will return to open session and present recommendations to the State Medicaid Director (proposed rules regarding the submission of claims for reimbursements for compounded prescriptions to the Medicaid vendor drug program; proposed rules regarding reimbursement methodology change in the Medicaid vendor drug program; and final adoption of rules relating to Title XIX home health services); and Medicaid managed care update.

To request an accommodation under the ADA, please contact Suzzanna Currier, ADA Coordinator in the Office of Civil Rights at (512) 458-7627 or TDD at (512) 458-7708 at least two prior to the meeting.

Contact: Kris Lloyd, 1100 West 49th Street, Austin, Texas 78756, (512) 458-7484.

Filed: May 21, 1997, 3:30 p.m.

TRD-9706744

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Friday, May 30, 1997, 1:00 p.m.

Moreton Building, Room M-739, Texas Department of Health, 1100 West 49th Street

Austin

Texas Board of Health

REVISED AGENDA:

The Board will meet in open session and introduce guests and discuss and possibly act on: approval of the minutes of the April 25, 1997 meeting; commissioner's report; resolutions (recognition of prostate cancer awareness week; Ramiro R. Casso, M.D. and Betsy Triplett-Hurt); presentation of the moment of truth award; Strategic Management Committee report; Health Financing Committee report (recommendations to the State Medicaid Director (proposed rules regarding the submission of claims for reimbursements for compounded prescriptions to the Medicaid vendor drug program; proposed rules regarding reimbursement methodology change in the Medicaid vendor drug program; and final adoption of rules relating to Title XIX home health services)); Health and Clinical Services Committee Report (final adoption of rules concerning documentation requirements, complaint procedures, and educational requirements for midwives; proposed rules concerning sexually transmitted diseases (STD), including acquired deficiency syndrome (AIDS) and human immunodeficiency virus (HIV); recommendation to the State Medicaid Director concerning proposed rules for Early Periodic Screening and Diagnostic Testing (EPSDT)- Texas Health Steps Medical Case Management; and demonstration of IMMTrac and Project status); Human Resources Committee report (appointments to the Family Planning Advisory Council); Regulatory Committee report (final adoption of rules concerning licensure of medical physicists and final adoption of rules concerning certification of respiratory care practitioners); public comments; announcements and comments; and setting of meeting date for June, 1997. The board will then meet in executive session to deliberate the appointment of the Commissioner of Health through interviews of applicants.

To request an accommodation under the ADA, please contact Suzzanna Currier, ADA Coordinator in the Office of Civil Rights at (512) 458-7627 or TDD at (512) 458-7708 at least two prior to the meeting.

Contact: Kris Lloyd, 1100 West 49th Street, Austin, Texas 78756, (512) 458-7484.

Filed: May 21, 1997, 2:56 p.m.

TRD-9706727



Texas Higher Education Coordinating Board

Wednesday, May 28, 1997, 10:00 a.m.

Texas A&M University, Facility Planning and Construction Building, Room 200A, Asbury and University Streets

College Station

Campus Planning Committee

REVISED AGENDA:

10:00 a.m.- Discussion of the following projects: Texas A&M University: Two New Grass Practice Fields; Kyle Field expansion; Central Chiller Plan Improvements; Southern Crop Facility; (Second

Reading); New Child Care Facility. West Texas A&M University-Reapprove Electronic Learning

1:00 Tour Texas A&M University Bush Library

3:15 p.m. — Discussion of project: Texas A&M University-Texarkana — Aikin Building Expansion (second reading)

4:10 p.m.- Discussion of project: University of North Texas-Purchase property at 905, 915, 915 1/2 and 917 West Sycamore.

Contact: Don Brown, P.O. Box 12788, Capitol Station, Austin, Texas 78711, (512) 483-6101.

Filed: May 23, 1997, 8:00 a.m.

TRD-9706812



Texas Department of Housing and Community Affairs

Thursday, Friday, June 19-20, 1997, 9:00 a.m.

507 Sabine Street, Fourth Floor

Austin

Advisory Commission

AGENDA:

The Advisory Commission on the Manufactured Housing Rules will meet to continue its analysis and discussion of proposed amendments to the rules and to develop recommendations.

Contact: Larry Paul Manley, 507 Sabine, Suite 900, Austin, Texas 78701, (512) 475-3934.

Filed: May 22, 1997, 8:48 a.m.

TRD-9706762



Texas Department of Human Services, Region Four

Wednesday, June 4, 1997, 11:00 a.m.

Texas Department of Human Services, Tyler Office, 302 East Rieck Road

Tyler

Office on Services to Persons with Disabilities Regional Consumer Meeting

AGENDA:

This is part of a statewide series of consumer meetings with the goal of providing a more effective vehicle for receiving consumer and advocate input about policies, programs, and services for Texans with disabilities.

Contact: Beverly Young, P.O. Box 149030, Austin, Texas 78714-9030. (512) 438-3233.

Filed: May 27, 1997, 4:18 p.m.

TRD-9706951



General Land Office

Tuesday, June 3, 1997, 10:00 a.m.

Stephen F. Austin Building, 1700 North Congress Avenue, Room 831

Austin

School Land Board

AGENDA:

Approval of previous board meeting minutes; pooling applications: Cage Ranch (8300 Vicksburg) Field, Brooks county; Texas (Hugoton) Field, Hansford County; Clay, N.E. (Austin Chalk 11350), Burleson County; and Huat (Canyon) Field, Gaines County; royalty incentive application, Hawk Eye (Adams Branch) Field, Eastland County; applications to least highway rights of way for oil and gas, Washington County, Austin County, Howard County, Haskell County, Hemphill County, Johnson County, Freestone County, Victoria County; Direct land sales; Cass and Marrion Counties; coastal public lands, easement amendments, Mission Bay, Refugio County; structure (cabin) permit renewals, Laguna Madre, Kenedy County; Laguna Madre, Willacy county; commercial easement applications, Arroyo Colorado, Cameron County; Dickinson Bay, Galveston County; Executive Session and Open Session- Consideration and approval of a contract not to exceed \$96,000 to consider feasibility study for a gas cogeneration plant, Duval County; Executive Session and Open Session — discussion regarding disposition and related issues concerning Paseo Del Este, El Paso County; Executive Session-discussion of status on San Antonio Riverwalk Acquisition, Bexar County; Executive Session- pending or contemplated litigation.

Contact: Linda K. Fisher, Stephen F. Austin Building, 1700 North Congress Avenue, Room 836, Austin, Texas 78701, (512) 463-5016. Filed: May 23, 1997, 3:42 p.m.

TRD-9706857



Texas Board of Professional Land Surveying

Friday, June 6, 1997, 9:00 a.m.

7701 North Lamar, Suite 400

Austin

Board

REVISED AGENDA:

On June 6, 1997, the Board will go into Executive Session for the purpose of consulting with an attorney concerning pending litigation (Pursuant to Texas Government Code 551.071) regarding J.E. Mortensen v. R. Pounds, S. Smith, Wm Wilson and Board (SOAH Docket Number 464-94-0861) Complaint 92-14, 95-38, 88-7, 92-28m Upon returning to open session, the board will take action regarding litigation with the case J.E. Mortensen v. R. Pounds, S. Smith, Wm. Wilson and Board (SOAH Docket Number 464-94-0861), Complaint 92014, 96-38, 88-7, 92-28. Introductions, comments from the public, and presentations; approval of March 24, 1997 minutes; to consider and act upon the director's report which will include Appropriations Request, issues, rules; possible consideration of rule 663.13 and 663.21, reconsideration of rule 661.48, possible proposal of rule concerning non defined work, possible proposal of rule relating to other professional services, possible consideration of board rule to implement §23A; courses to meet requirements of

§15(e)(2) and (4). Correspondence acknowledged; Joint Marketing Agreements, active and inactive fee charges. Future agenda items and meetings comments from the public.

Persons with disabilities who plan to attend this meeting and who may need auxiliary aids or services such as interpreters for persons who are deaf or hearing impaired, readers, large print, or braille are requested to contact Sandy Smith (512) 452-9427 two working days prior to the meeting so that appropriate arrangements can be made.

Contact: Sandy Smith, 7701 North Lamar, Suite 400, Austin, Texas 78752.

Filed: May 23, 1997, 11:50 a.m.

TRD-9706837



Board of Law Examiners

Thursday, June 5, 1997, 8:30 a.m.

Suite 500, Tom C. Clark Building, 205 West 14th Street

Austin

Panel Hearings

AGENDA:

The hearings panel will hold public hearings and conduct deliberations; including the consideration of proposed agreed orders, on the character and fitness of the following applicants, declarants and/or probationary: Doug Grimes; Doyle Weaver; Lynnette Bratton; Kelley Cash; Traci H.Lohman; Hector V. Villegas; Daniel Kelly (character and fitness deliberations may be conducted in executive session, pursuant to §82.003(a), Texas Government Code.)

Contact: Rachel Martin, P.O. Box 13486, Austin, Texas 78711-3486, (512) 463-1621.

Filed: May 23, 1997, 3:05 p.m.

TRD-9706872



Texas Department of Licensing and Regulation

Tuesday, June 3, 1997, 9:00 a.m.

920 Colorado Boulevard, E.O. Thompson Building, First Floor, Room 108

Austin

Consumer Protection, Auctioneering

AGENDA:

According to the complete agenda, the Department will hold an Administrative Hearing to consider possible assessment of administrative penalties against the Respondent, James C. Ray, as well as revocation of the Respondent's auctioneer license and reimbursement to the Auctioneer Education and Recovery Fund, for failing to pay all amounts due to seller within fifteen (15) banking days in violation of the Texas Revised Civil Statutes Annotated article 8700 (the Act) §7(a)(4) and 16 Texas Admin. Code (TAC) §67.101(4); the Department will also consider the claim filed in this case against the Auctioneer Education and Recovery Fund in accordance with the Act §5C. This Administrative Hearing will be held pursuant to the Act and Texas Revised

Civil Statutes Annotated article 9100; the Texas Government Code, Chapter 2001 (APA) ; and 16 TAC Chapter 67.

Contact: Paula Hamje, 920 Colorado, E.O. Thompson Building, Austin, Texas 78701, (512) 463-3192.

Filed: May 23, 1997, 9:54 a.m.

TRD-9706817

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Thursday, June 12, 1997, 1:15 p.m.

Williams and Davis Boilers, 2044 IH45

Hutchins

Task Force on Controls and Safety Devices for Automatically Fired Boilers

AGENDA:

1. Call to Order
2. Roll Call
3. Approval of Agenda
4. Approval of Minutes of March 26, 1997
5. Discussion
6. Next Meeting
7. Adjourn

Under the American with Disabilities Act, persons who plan to attend this meeting and require ADA assistance are requested to contact Barbara Stoll at (512) 475-2858 at least two working days prior to the meeting so that appropriate arrangements can be made.

Contact: George Bynog, 920 Colorado, Austin, Texas 78711, (512) 463-7365.

Filed: May 22, 1997, 4:12 p.m.

TRD-9706811

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Texas Council on Offenders with Mental Impairments

Wednesday, June 4, 1997, 10:30 a.m.

Harris County Pretrial Services Agency, 1310 Prairie

Houston

Executive Committee Meeting

AGENDA:

- I. Call to Order
- II. Public Comments
- III. Approval of Minutes
- IV. Council Operating Policies
- V. Elliott Award Guidelines
- VI. Council Agenda
- VII. Director's Report
- FY 98-99 Budget/Contract Services

•Legislative Update

•Interdisciplinary Skills Conference

Adjourn

Contact: Diane Menchaca, 8610 Shoal Creek Boulevard, Austin, Texas (512) 406-5406.

Filed: May 26, 1997, 8:31 a.m.

TRD-9706874

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Texas Natural Resource Conservation Commission

Thursday, June 5, 1997 at 9:30 a.m.

12100 Park 35 Circle, Building E, Room 201-S, TNRCC Park 35 Complex

Austin

Water Well Drillers Advisory Council

AGENDA:

The Texas Water Well Drillers Advisory Council will meet and discuss the following: approval of minutes from April 4, 1997, set complaints for a formal hearing or set for appropriate legal action: Mike Marlar, Jose Martinez, Joe McDearmon, A.R. Roggenkamp, Dorsey Smith, and Bruce Tidwell; consider qualifications of applicants for certification and driller trainee registration; and staff reports.

Contact: Rick Wilder, Occupational Certification Section, (512) 239-0541.

Filed: May 27, 1997, 12:56 a.m.

TRD-9706915

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Tuesday, June 10, 1997 at 10:00 a.m.

Stephen F. Austin Building, Room 1100, 1700 North Congress Avenue

Austin

AGENDA:

The Texas Natural Resource Conservation Commission has referred the enforcement case on ALLEN RUTHERFORD to the State Office of Administrative Hearings (SOAH). SOAH has scheduled a public hearing on the assessment of administrative penalties and requiring certain actions of Allen Rutherford, SOAH Docket Number 582-97-0977.

Contact: Pablo Carrasquillo, P.O. Box 13087, Austin, Texas 78711-3087, (512) 475-3445.

Filed: May 21, 1997, 11:48 a.m.

TRD-9706716

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Wednesday, June 11, 1997 at 9:00 a.m., Rescheduled from:
Tuesday, June 10, 1997, 10:00 a.m.

Stephen F. Austin Building, Room 1100, 1700 North Congress Avenue

Austin

AGENDA:

The Texas Natural Resource Conservation Commission has referred the enforcement case on ALLEN RUTHERFORD to the State Office of Administrative Hearings (SOAH). SOAH has scheduled a public hearing on the assessment of administrative penalties and requiring certain actions of Allen Rutherford, SOAH Docket Number 582-97-0977.

Contact: Pablo Carrasquillo, P.O. Box 13087, Austin, Texas 78711-3087, (512) 475-3445.

Filed: May 22, 1997, 11:48 a.m.

TRD-9706767



Wednesday, June 25, 1997 at 9:30 a.m.

TNRCC Park 35 Office Complex, 12118 North Interstate 35

Austin

AGENDA:

Docket Numbers 97-0382-DIS, 97-0383-DIS and 97-0384-DIS; three Petitions for the creation of three municipal utility districts which will be known as PASEO DE LA RESACA MUNICIPAL UTILITY DISTRICT Number One, PASEO DE LA RESACA MUNICIPAL UTILITY DISTRICT Number Two, and PASEO DE LA RESACA MUNICIPAL UTILITY DISTRICT Number Three (the "Districts"). The Petitions are filed and the hearing will be held under the authority of Article XVI, §59 of the Texas Constitution, Chapters 49 and 54 of the Texas Water Code, 30 Texas Administrative Code Chapter 293, and the procedural rules of the Commission. The applicants have stated that a preliminary investigation has been instituted to determine the cost of said projects and it is estimated from such information as is available at this time, that the ultimate cost of the development contemplated for each District will be approximately: \$1,128,590 for construction costs and \$591,410 for non-construction costs for a total bond issue requirement of \$1,720,000 for PASEO DE LA RESACA MUNICIPAL UTILITY DISTRICT Number One; \$2,090,144 for construction costs and \$1,019,856 for non-construction costs for a total bond issue requirement of \$3,110,000 for PASEO DE LA RESACA MUNICIPAL UTILITY DISTRICT Number Two; and \$1,124,267 for construction costs and \$595,733 for non-construction costs for a total bond issue requirement of \$1,720,000 for PASEO DE LA RESACA MUNICIPAL UTILITY DISTRICT Number Three. All of the proposed Districts are located approximately 1.2 miles east of the intersection of U.S. Highway 77/83 and Farm to Market Road 802. The proposed Districts are each a part of the Hudson Farm Planned Community Development, and all of the land within the proposed Districts is within the city limits of Brownsville, and are not within the corporate limits or extraterritorial jurisdiction of any other city.

Contact: Water Utilities District Administration, Mail Code 152, P.O. Box 13087, Austin, Texas 78711-3087, (512) 239-6161.

Filed: May 22, 1997, 2:36 p.m.

TRD-9706799



Wednesday, July 30, 1997 at 10:00 a.m.

Denton County Courthouse-Commissioners Courtroom, 110 West Hickory

Denton

AGENDA:

The Texas Natural Resource Conservation Commission has referred the application for an air standard exemption registration from CEMTEX CONCRETE, L.L.C. to the State Office of Administrative Hearings (SOAH). Cemtex Concrete, L.L.C. has applied to the Texas Natural Resource Conservation Commission (TNRCC) for Proposed Registration Number 32892 to authorize construction of a concrete batch plant at 1923 Hill Lane, near Little Elm in Denton County, Texas. This matter has been assigned SOAH Docket Number 582-97-0497.

Contact: Pablo Carrasquillo, P.O. Box 13087, Austin, Texas 78711-3087, (512) 475-3445.

Filed: May 22, 1997, 9:11 a.m.

TRD-9706766



Texas State Board of Occupational Therapy Examiners

Friday, May 30, 1997, 9:30 a.m.

333 Guadalupe, Suite 2-510

Austin

Application Review Committee

AGENDA:

I. Call to Order

II. Review and possible action on the following applications for occupational therapy license: Brown, Gloria A; Ray, Ruth Ann; Rosenhoover, Richard Allen; Shannon, Kasey Rose; Waters, Charlotte Marie.

III. Adjourn

Contact: Alicia Dimmick Essary, 333 Guadalupe Street, Suite 2-510, Austin, Texas 78701-3942.

Filed: May 22, 1997, 2:35 p.m.

TRD-9706795



Texas Board of Pardons and Paroles

Wednesday, June 4, 1997, 8:00 a.m.

State of Texas Law Center, 1414 Colorado Street, Room 104

Austin

AGENDA:

I Regular Session

A. Recognition of Guests

B. Presentation by TDCJ-Parole Divisions

C. Consent Items

D. Board Committee and Staff Reports

E. Resolution Approving National Institute of Corrections (NIC) Technical Assistance Grant Application

F. Sex Offender Conditions

G. Adoption of Proposed Rules as Published in the April 1, 1997 issue of the Texas Register (22TexReg 3207)

H. Adoption of Proposed Amendments to 37 TAC §143 and §145 et seq.

II. Executive Session

A. Litigation

Persons with disabilities who plan to attend this meeting and who need auxiliary aids or services as interpreters for persons who are deaf or hearing impaired, readers, large print or Braille, are required to contact the agency prior to the meeting so that appropriate arrangements can be made.

Contact: Juanita Llamas, P.O. Box 13401, Austin, Texas 78711, (512) 463-1702.

Filed: May 23, 1997, 12:18 p.m.

TRD-9706841



Texas Parks and Wildlife Department

Tuesday, Thursday, June 3 and 5, 1997, 8:00 a.m., Friday, June 6, 1997, 8:00 a.m.

Parks and Wildlife Headquarters, 4200 Smith School Road, Commission Hearing Room

Austin

Parks and Wildlife Commission Travel Itinerary

AGENDA:

Members of the Texas Parks and Wildlife Commission plan to visit Department field facilities during the period of Tuesday, June 3, 1997 through Friday, June 6, 1997. Although this will primarily be a fact finding/learning period and no formal action is planned, the Commission may discuss items on the Public Hearing scheduled for 9:00 a.m. Thursday, June 5, 1997 and field facility issues.

Contact: Andrew Sansom, 4200 Smith School Road, Austin, Texas 78744, (512) 389-4642.

Filed: May 23, 1997, 9:58 a.m.

TRD-9706823



Wednesday, June 4, 1997, 9:00 a.m.

Parks and Wildlife Headquarters, Commission Hearing Room, 4200 Smith School Road

Austin

Parks and Wildlife Commission Finance Committee

AGENDA:

Approval of the Committee minutes from the previous meeting; BRIEFING-Financial Overview; BRIEFING- Texas Outdoor Connection License Options; ACTION- License and Boat Fee Rule Modifications; BRIEFING-Publications; Other Business

Contact: Andrew Sansom, 4200 Smith School Road, Austin, Texas 78744, (512) 389-4642.

Filed: May 23, 1997, 9:58 a.m.

TRD-9706824



Wednesday, June 4, 1997, 9:00 a.m.

Parks and Wildlife Headquarters, Commission Hearing Room, 4200 Smith School Road

Austin

Parks and Wildlife Commission Policy Workshop

AGENDA:

BRIEFING: Legislation; BRIEFING-Freshwater Inflows-City of Corpus Christi

Contact: Andrew Sansom, 4200 Smith School Road, Austin, Texas 78744, (512) 389-4642.

Filed: May 23, 1997, 9:59 a.m.

TRD-9706827



Wednesday, June 4, 1997, 9:00 a.m.

Parks and Wildlife Headquarters, Commission Hearing Room, 4200 Smith School Road

Austin

Parks and Wildlife Commission Public Lands Committee

AGENDA:

Approval of the Committee Minutes from the previous meeting; ACTION-Pipeline Easement-Orange County; BRIEFING-Coastal Preserve Plans; ACTION-Nomination for Oil and Gas Lease-Smith County; ACTION-Land Acquisition-Dallas County; ACTION-Land Acquisition- El Paso County; Other Business.

Contact: Andrew Sansom, 4200 Smith School Road, Austin, Texas 78744, (512) 389-4642.

Filed: May 23, 1997, 9:59 a.m.

TRD-9706829



Wednesday, June 4, 1997, 9:00 a.m.

Parks and Wildlife Headquarters, Commission Hearing Room, 4200 Smith School Road

Austin

Parks and Wildlife Commission, Public Lands Executive Committee

AGENDA: Notice of Closed Meeting

Approval of the Minutes from the previous meeting; ACTION-ACTION-Land Acquisition-Dallas County; ACTION-Land Acquisition- El Paso County

Contact: Andrew Sansom, 4200 Smith School Road, Austin, Texas 78744, (512) 389-4642.

Filed: May 23, 1997, 10:00 a.m.

TRD-9706830

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Wednesday, June 4, 1997, 9:00 a.m.

Parks and Wildlife Headquarters, Commission Hearing Room, 4200 Smith School Road

Austin

Parks and Wildlife Commission, Regulations Committee

AGENDA:

Approval of the Committee Minutes from the previous meeting; BRIEFING-Status of Minnow Populations; ACTION-Alligator Regulations; ACTION-1997-98 Migratory Game Bird Proclamation-Early Season Provisions; ACTION- Proposed Regulations for Sale of Protected Nongame; ACTION-Regulations for Scientific Research, Educational Display and Zoological Collection Permits; ACTION-Establishment of a Youth-Only Hunting Season; Other Business.

Contact: Andrew Sansom, 4200 Smith School Road, Austin, Texas 78744, (512) 389-4642.

Filed: May 23, 1997, 10:00 a.m.

TRD-9706831

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Wednesday, June 4, 1997, 6:00 p.m.

The Headliners Club, 221 West Sixth Street

Austin

Parks and Wildlife Commission Reception

AGENDA:

Members of the Texas Parks and Wildlife Commission plan to have a reception for former commissioners at 6:00 p.m., June 4, 1997. Although this function is primarily a social event and no formal action is planned, the Commission may discuss items on the Public Hearing scheduled for 9:00 a.m., Thursday, June 5, 1997.

Contact: Andrew Sansom, 4200 Smith School Road, Austin, Texas 78744, (512) 389-4642.

Filed: May 23, 1997, 9:58 a.m.

TRD-9706825

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Wednesday, June 4, 1997, 7:30 p.m.

The Headliners Club, 221 West Sixth Street

Austin

Parks and Wildlife Commission Dinner Meeting

AGENDA:

Members of the Texas Parks and Wildlife Commission plan to have dinner at 7:30 p.m., June 4, 1997. Although this function is primarily a social event and no formal action is planned, the Commission may discuss items on the Public Hearing scheduled for 9:00 a.m., Thursday, June 5, 1997.

Contact: Andrew Sansom, 4200 Smith School Road, Austin, Texas 78744, (512) 389-4642.

Filed: May 23, 1997, 9:58 a.m.

TRD-9706828

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Thursday, June 5, 1997, 7:30 p.m.

Parks and Wildlife Headquarters, Commission Hearing Room, 4200 Smith School Road

Austin

Parks and Wildlife Commission Public Hearing

AGENDA:

Approval of the Minutes from the previous meeting; Presentation of Service Awards; Presentation-Conservation Grand Prize Award to Compaq Computers; Presentation-Texas Youth Hunting Association Awards; Presentation- First Award of the TPWE Landowner Incentive Program; Presentation-Safari Club International, Inc.'s "Educator of the Year" Award; Presentation- Texas Black Bass Unlimited Donation; ACTION 1997-98- Migratory Game Bird Proclamation- Early Season Provisions; BRIEFING-State Parks; ACTION-Regulations for Scientific Research, Educational Display and Zoological Collection Permits; ACTION- Proposed Regulations for Sale of Protected Nongame; ACTION-Alligator Regulations; ACTION-License and Boat Fee Rule Modification; ACTION-Pipeline Easement-Orange County; ACTION- Nominations for Oil and Gas Lease-Tyler State Park-Smith County; ACTION-Land Acquisition-Dallas County, ACTION-Land Acquisition- El Paso County.

Contact: Andrew Sansom, 4200 Smith School Road, Austin, Texas 78744, (512) 389-4642.

Filed: May 23, 1997, 9:59 a.m.

TRD-9706826

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Texas State Board of Pharmacy

Thursday, June 5, 1997, 9:00 a.m.

Stephen F. Austin Building, 1700 North Congress Avenue, 11th Floor, Suite 1100

Austin

Disciplinary Hearing

AGENDA:

The State Office of Administrative Hearings will conduct a disciplinary hearing in the matter of Frederick J. Henley, Case # R-96-002.

Contact: Carol Fisher, 333 Guadalupe Street, 3-600, Box 21, Austin, Texas 78701-3942.

Filed: May 22, 1997 2:35 p.m.

TRD-9706794

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Texas Polygraph Examiners Board

Thursday, June 12, 1997, 5:00 p.m., Friday, June 13, 1997-8:30 a.m. If Necessary, the Board will meet Saturday, June 14, 1997 at 8:30 a.m. to conclude board business.

DPS Building C, 5805 North Lamar, Academy Administrative Commission Room

Austin

Full Board Meeting

AGENDA:

First item: Executive Session per §551.071 of the Texas Open Meeting Act, adjourn to meet with the Texas Association of Law Enforcement Polygraph Investigators meeting at the DPS Training Auditorium from 10:00 a.m. till 11:30 a.m. to update licensees on Board activities and for a question and answer session with its membership. The Board will resume at 1:30 p.m. to administer the Phase 3 portion of the polygraph examiners examination to eligible interns. The full board meeting will resume at the conclusion of the testing period.

The Board will review and possibly set fees for FY98 and review the form requesting information from polygraph examiners. The board will review all current rules and the Polygraph Examiners Act for consideration of future changes. The board will discuss the filing of an attorney general opinion request and its status concerning §19A of the Polygraph Examiners Act as it relates to the Texas Family Code, reporting child abuse, Chapter 261. The board will discuss, possibly approval and vote on amendments to Rules 391.3(13), Approved Polygraph School Include the Following; new rule 391.3(18), intern licensing period; 393.7 Polygraph Examination; 395.10 Examination Results. The board will review public comments received prior to the meeting, discuss, possibly approve and vote on amendments to Chapter 397 of the Act, Rules relating to Practice and Procedures. The board will review administrative items as listed in the full agenda on file with the Texas Register.

Contact: Frank Di Tucci, P.O. Box 4087, Austin, Texas 78773-0001, (512) 424-2058.

Filed: May 27, 1997, 9:25 a.m.

TRD-9706877

Public Utility Commission of Texas

Wednesday, June 4, 1997, 9:00 a.m.

1701 North Congress Avenue

Austin

AGENDA:

There will be an Open Meeting for discussion, consideration, and possible action regarding: Docket Numbers 15102, 17285, 16902, and 16995; Status report on resource needs in the Rio Grande Valley; Docket Number 16433; Discussion of wholesale electric market, including pass-through of cost savings; Docket Numbers 14965, 17250, 15840, 17014, 17298, and 17070; Docket Numbers 16189, 16196, 16226, 16285, and 16290; Docket Numbers 16890 and 16891; Docket Number 15711; Docket Numbers 17034, 17035, 17187, 17253, and 17215; Docket Numbers 17219, 16707, 16709, 17278, 16658, 16744, 17220, 17256, 17307, 17316, 17344, 17275, 17276, 17229, 17243, 17244, 17269, and 15904; Project Number 17327, Selection of a Telecommunications Carrier (Slamming); local exchange carrier compliance with FCC rule in providing public information regarding telecommunications relay service; Federal Telecommunications Act of 1996, including but not limited to actions taken by the Federal Communications commission; report to the Legislature on Texas jurisdictional utilities' usage of Historically underutilized Businesses, October 1995-September 1996; PUC Employee Handbook; Project assignments, correspondence, staff reports, audit, agency adminis-

trative procedures, budget, consumer affairs/protection/enforcement, fiscal matters and personnel policy; Legislative matters; Adjournment for closed session to consider litigation and personnel matters; Reconvene for discussion and decisions on matters considered in closed session.

Contact: Rhonda Dempsey, 1701 North Congress Avenue, Austin, Texas 78701, (512) 936-7283.

Filed: May 27, 1997, 3:50 p.m.

TRD-9706939

Texas Department of Public Safety

Wednesday, June 11, 1997, 10:30 a.m.

DPS Headquarters, 5805 North Lamar

Austin

Public Safety Commission

AGENDA:

Approval of Minutes

Budget Matters

Internal Audit Report

Personnel Matters

Pending and Contemplated Litigation

Real Estate Matters

Public Comment

Miscellaneous and Other Unfinished Business

Discharge Appeal Hearing of DPS Employee Theodore Johnson

Contact: Dudley M. Thomas, 5805 North Lamar, Austin, Texas 78752, (512) 424-2000, extension 3700.

Filed: May 28, 1997, 10:00 a.m.

TRD-9706970

Railroad Commission of Texas

Tuesday, June 3, 1997, 9:30 a.m.

1701 North Congress Avenue, First Floor Conference Room 1-111

Austin

AGENDA:

According to the complete agenda, the Railroad Commission of Texas will consider various applications and other matters within the jurisdiction of the agency including oral arguments at the time specified on the agenda filed with the Texas Register. The Railroad Commission of Texas may consider the procedural status of any contested case if 60 days or more have elapsed from the date the hearing was closed or from the date the transcript was received.

The Commission may meet in Executive Session on any items listed above as authorized by the Open Meetings Act.

Contact: Lindil C. Fowler, Jr., P.O. Box 12967, Austin, Texas (512) 463-7033.

Filed: May 23, 1997, 4:31 p.m.
TRD-9706861



Tuesday, June 3, 1997, 9:30 a.m.

1701 North Congress Avenue, First Floor Conference Room 1-111
Austin

EMERGENCY REVISED AGENDA:

In addition to matters already noticed for this date and time, the Commission will consider and may take action on Oil and Gas Docket Number 03-0214832, Application of WestPark Petroleum, Inc. for Appeal of Denial of Approval Pursuant to Statewide Rule 101 for Severance Tax Relief, Sharp Unit Well Number One, Giddings (Austin Chalk, Gas) Field, Washington County, Texas, for extension of time to rule on motion for rehearing.

REASON FOR EMERGENCY: The Commission will lose jurisdiction over the motion for rehearing unless it extends the time for acting, because the Commission's next regularly scheduled meeting is June 24, 1997.

Contact: Lindil C. Fowler, Jr., P.O. Box 12967, Austin, Texas (512) 463-7033.

Filed: May 27, 1997, 4:17 p.m.

TRD-9706950



State Securities Board

Monday, July 14, 1997, 9:00 a.m.

Stephen F. Austin Building, 1700 North Congress Avenue, 11th Floor, Suite 1100

Austin

Administrative Hearing

AGENDA:

A hearing will be held for the purpose of determining whether the dealer registration of Investors Associates, Inc. should be revoked.

Contact: David Grauer, 200 East 10th Street, Fifth Floor, Austin, Texas 78701, (512) 305-8392.

Filed: May 27, 1997, 3:54 p.m.

TRD-9706941



Council on Sex Offender Treatment

Friday, May 30, 1997, 8:30 a.m.

William P. Clements Building, 300 West 15th Street, Room 103

Austin

Joint Meeting/Council on Sex Offender Treatment and the Interagency Advisory Committee

AGENDA:

I. Convene, Collier M. Cole, Ph.D., Chairperson

II. Adoption of the Minutes

III. Report on CSOT Legislation and Merge with TDH Licensing

IV. Executive Director's Report

V. New Business

VI. Old Business

VII. Public Comment

VIII. Adjourn

Contact: Marla Swint, P.O. Box 12546, Austin, Texas 78711-2546, (512) 463-2323.

Filed: May 22, 1997, 2:36 p.m.

TRD-9706796



Stephen F. Austin State University

Tuesday, May 27, 1997, 10:00 a.m.

1939 North Street, Austin Building, Room 307

Nacogdoches

Board of Regents

AGENDA:

I. Financial Affairs

A. Approval of Deposit Contract with Commercial Bank of Texas

II. Buildings and Grounds

A. Paving Project: Hall 20 Parking Lot and Geology Storage Building Area

(Where appropriate and permitted bylaw, Executive Sessions may be held for the above listed subjects).

Contact: Dan Angel, P.O. Box 6078, Nacogdoches, Texas 75962-6078, (409) 468-2201.

Filed: May 21, 1997, 3:36 p.m.

TRD-9706753



Texas State Technical College System

Friday, May 30, 1997, 12:45 p.m.

TSTC Abilene Extension Center, ARBEC Conference Room

Abilene

Board of Regents

AGENDA:

Discussion and Review of the following TSTC Policy Committee Minute Orders and Reports:

Committee of the Whole

Policy Committee for Instruction and Student Services

Policy Committee for Human Resources and Development

Policy Committee for Facilities

Policy Committee for Fiscal Affairs

Reconvene Committee of the Whole

Contact: Sandra J. Krumnow, 3801 Campus Drive, Waco, Texas 76705, (817) 867-4890.
Filed: May 21, 1997, 11:48 a.m.

TRD-9706715

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Saturday, May 31, 1997, 8:00 a.m.

TSTC Abilene Extension Center, ARBEC Conference Room

Abilene

Board of Regents

AGENDA:

The Board of Regents Agenda Includes the following:

Declaration of Buildings not needed for Educational and Training Purposes at Waco, Requests for Budget Change, Tuition and Fees for FY98, Austin Office Lease, Student and Family Housing Rental Rates, Service Charges and Deposits Schedule for FY98, Board Plan rates for FY98, Fees Increase for Cardiovascular Wellness Center at Sweetwater, Accept Landfill and Debris as completed Project at Amarillo, Award a Contract for Environmental Cleanup at Amarillo, Ground Lease with Airborne Express at Waco, Demolition of Buildings not needed at Waco, Approval of Schematic Design for Computer Applications Center and Fentress Center Phase II at Waco, Approval of Concept of Renovation of Student Center at Waco, Change Order for Science and Technology Building at Harlingen, Annual Operating Plan for Foundation, Authorization to Reopen the Search for Chancellor. Financial Exigency at Sweetwater and Board of Regents Quarterly Meetings.

Contact: Sandra J. Krumnow, 3801 Campus Drive, Waco, Texas 76705, (817) 867-3964.

Filed: May 21, 1997, 2:43 p.m.

TRD-9706724

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Saturday, May 31, 1997, 8:00 a.m.

TSTC Abilene Extension Center, ARBEC Conference Room

Abilene

Board of Regents

REVISED AGENDA:

Addition of One item to the Board of Regent's Agenda; Authorization to Negotiate with Valley International Airport

Contact: Sandra J. Krumnow, 3801 Campus Drive, Waco, Texas 76705, (817) 867-3964.

Filed: May 23, 1997, 11:07 a.m.

TRD-9706835

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Saturday, May 31, 1997, 8:05 a.m.

TSTC Abilene Extension Center, ARBEC Conference Room

Abilene

Board of Regents

AGENDA:

Closed meeting for the specific purpose provided in §551.071, 551.072, 551.074 and 551.075 of Chapter 551 of the Texas Government Code to include the following:

Truett W. Bates vs TSTC

Discuss TSTC Waco Airport Lease

Discuss Recommendations of the Search Committee

Discuss System Organization and Personnel

Discuss TSTC Waco Reorganization

Contact: Sandra J. Krumnow, 3801 Campus Drive, Waco, Texas 76705, (817) 867-3964.

Filed: May 21, 1997, 2:43 p.m.

TRD-9706723

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Texas Department of Transportation

Thursday, May 29, 1997, 8:30 a.m.

125 East 11th Street, First Floor, Dewitt C. Greer Building

Austin

Texas Transportation Commission

AGENDA:

Delegations: San Angelo Chamber of Commerce, Texas Highway 31 Association, City of El Paso/El Paso Metropolitan Planning Organization, and Lubbock Metropolitan Planning Organization. Approve Minutes. Rulemaking: 43 TAC Chapter 1,2, 18, and 22. Multimodal Transportation. Contract Awards/Rejections/Defaults/Assignments/Claims. Routine Minute Orders. Executive Session for legal counsel consultation, land acquisition matters, and management personnel evaluations, designations, assignments and duties. Open comment period.

Contact: Diane Northam, 125 East 11th Street, Austin, Texas 78701, (512) 463-8630.

Filed: May 21, 1997, 1:33 p.m.

TRD-9706717

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Thursday, May 29, 1997, 8:30 a.m.

125 East 11th Street, First Floor, Dewitt C. Greer Building

Austin

Texas Transportation Commission

EMERGENCY REVISED AGENDA:

Supplement to the agenda has been added to the following item:

5. Contracts (MOs)

(a) Award or rejection of contracts:

(1) Maintenance

(2) Building

(3) Highway Construction

Note: On page 5, the following has been added: Dallas County, Project STP 97(165) MM-IH30.

REASON FOR EMERGENCY: Immediate action is necessary to accomplish construction critical to public safety and welfare.

Contact: Diane Northam, 125 East 11th Street, Austin, Texas 78701, (512) 463-8630.

Filed: May 23, 1997, 4:05 p.m.

TRD-9706860



University of Houston System

Wednesday, Thursday, May 28, 29, 1997, 8:00 a.m.

Conference Room One, 1600 Smith, Suite 3400, UH System Offices
Houston

Board of Regents-Variou Committees

AGENDA:

May 28, 1997 — Asset Management — 8:00 a.m.

May 29, 1997 — Academic/Student Affairs — 8:00 a.m.

Contact: Peggy Cervenka, 1600 Smith, Suite 3400, Houston, Texas 77002, 1-713-754-7440.

Filed: May 21, 1997, 4:11 p.m.

TRD-9706755



Texas Council on Workforce and Economic Competitiveness

Wednesday, June 4, 1997, 1:00 p.m.

1117 Trinity Street, Room 304T

Austin

Technical Advisory Committee on Adult Literacy

AGENDA:

1:00 p.m. — Call to Order; Announcements, Public Comment; Legislative Update; Overview of Workforce Development System; Recommendations for Coordination of Workforce Development System Performance and Evaluation at the State Level; Break; Defining a literacy component of the Workforce Development System; Final Report on Texas Education Agency Schedule for the Adult Literacy Assessment System and the Texas Education Agency MIS; Adjourn.

Notice: Persons with disabilities who plan to attend this meeting and who may need auxiliary aids or services should contact Val Blaschke, (512) 936-8103 (or Relay Texas 800-735-2988) at least two days before this meeting so that appropriate arrangements can be made.

Contact: Val Blaschke, TCWEC, P.O. Box 2241, Austin, Texas 78768, (512) 936-8103.

Filed: May 23, 1997, 8:01 a.m.

TRD-9706814



Texas Workforce Commission

Tuesday, June 3, 1997, 9:00 a.m.

101 East 15th Street, Room 644, TWC Building

Austin

AGENDA:

Prior meeting; Public Comment; Staff reports, update on activities relating to Skills Development Fund and other activities as determined by the Acting Executive Director; Consideration and action on tax liability cases listed on Texas Workforce Commission Docket 23; Discussion, consideration and possible action on acceptance of donations of child care matching funds from Guardian School and Community Child Care, Inc.; Walker County Child Care Center; Odessa Junior Services League Day Nursery; Kiddle Cottage Child Care; United Way of Brazoria County; Kids Enterprise/Kids Enterprise II; and Little Red School house; Discussion, consideration and possible action on publication in the *Texas Register* of proposed changes to TWC rule relating to child care (40 TAC §551.074 to discuss personnel matters with executive staff; Actions, if any, resulting from executive session; Consideration and action on whether to assume continuing jurisdiction on Unemployment Compensation cases and reconsideration of Unemployment Compensation cases, if any; Consideration and action on higher level appeals in Unemployment Compensation cases listed on Texas Workforce Commission Docket 23; and Set date of next meeting.

Contact: Esther Hajdar, 101 East 15th Street, Austin, Texas 78778, (512) 463-7833.

Filed: May 23, 1997, 2:46 p.m.

TRD-9706844



Texas Workers' Compensation Insurance Facility

Tuesday, June 10, 1997, 9:30 a.m.

Four Seasons Hotel, 98 San Jacinto Boulevard

Austin

Governing Committee

AGENDA:

Executive Session(s) regarding personnel matters and pending legal matters. Following the closed Executive Session(s), the Governing Committee will reconvene in Open and Public Session and take any action as may be desirable or necessary as a result of the closed deliberations. Approval of minutes from the May 12, 1997 Governing Committee meeting. Discussion and possible action on privatizing the Texas Workers' Compensation Insurance Facility's assets and liabilities. Consideration and possible action on Travelers Indemnity Company's request for payment of servicing fees on Krew Staffing. Consideration and possible action on servicing company request for reimbursement of legal fees and expenses. Executive Director's Report.

Contact: Peter E. Potemkin, 8303 Mopac Expressway North, Suite 310, Austin, Texas 78759, (512) 345-1222.

Filed: May 23, 1997, 10:43 a.m.

TRD-9706834



Regional Meetings

Meetings filed May 21, 1997

East Texas Council of Governments, CEO Board of Directors, met at 1306 Houston Street, Kilgore, May 28, 1997 at 11:30 p.m. Information may be obtained from Glynn Knight, 3800 Stone Road, Kilgore, Texas 75662, (903) 984-8641. TRD-9706761.

Gulf Bend Center, Board of Trustees, met at 1502 East Airline, Victoria, May 27, 1997 at Noon. Information may be obtained from Agnes Moeller, 1502 East Airline, Victoria, Texas 77901, (512) 582-2309. TRD-9706714.

High Plains Underground Water Conservation District, Number One, Special Board Meeting, met at 2930 Avenue Q, Board Room, Lubbock, May 27, 1997 at 1:30 p.m. Information may be obtained from A. Wayne Wyatt, 2930 Avenue Q, Lubbock, Texas 79405, (806) 762-0181. TRD-9706752.

Lavaca County Central Appraisal District, Appraisal Review Board, met at 113 North Main Street, Hallettsville, May 29, 1997 at 9:00 a.m. Information may be obtained from Diane Munson, P.O. Box 386, Hallettsville, Texas 77964, (512) 798-4396. TRD-9706721.

Lavaca County Central Appraisal District, Board of Directors, will meet at 113 North Main Street, Hallettsville, June 9, 1997 at 4:00 p.m. Information may be obtained from Diane Munson, P.O. Box 386, Hallettsville, Texas 77964, (512) 798-4396. TRD-9706756.

Texas Automobile Insurance Plan Association, Governing Committee, (Emergency Revised Agenda) met at Omni Austin Hotel Southpark, 4140 Governor's Row, Austin, May 22, 1997 at 8:30 a.m. Information may be obtained from Dianna Brooks, P.O. Box 18447, Austin, Texas 78760-8447, (512) 444-5999. TRD-9706754.

Meetings filed May 22, 1997

Atascosa County Appraisal District, Appraisal Review Board, met at Fourth and Avenue J, Poteet, May 27, 1997 at 9:00 a.m. Information may be obtained from Curtis Stewart, P.O. Box 139, Poteet, Texas 780654-0139, (210) 742-3591. TRD-9706797.

Capital Area Rural Transportation System (CARTS), Board of Directors, met at 2010 East Sixth Street, Austin, May 29, 1997 at 9:00 a.m. Information may be obtained from Edna M. Burroughs, P.O. Box 6050, Austin, Texas 78702, (512) 389-1011. TRD-9706809.

Coastal Bend Council of Governments, Membership, met at 2910 Leopard Street, Corpus Christi, May 30, 1997 at 2:00 p.m. Information may be obtained from John P. Buckner, P.O. Box 9909, Corpus Christi, Texas 78469, (512) 883-5743. TRD-9706769.

Coastal Bend Area Chief Elected Officials Council, CEO Council, met at 2910 Leopard Street, Corpus Christi, May 30, 1997 at 3:00 p.m. Information may be obtained from Shelley Franco, 1616 Martin Luther King Drive, Corpus Christi, Texas 78401, (512) 889-5300. TRD-9706793.

Community Action Committee of Victoria, Texas, Board of Directors, met at 1501 North DeLeon, Suite A, Victoria, May 29, 1997 at 7:00 p.m. Information may be obtained from Vicki Smith, 1501 North DeLeon, Suite A, Victoria, Texas 77902-2142, (512) 578-2989. TRD-9706802.

Education Service Center, Board of Directors, will meet at 2811 LaForce Boulevard, Midland, June 5, 1997 at 6:00 p.m. Information may be obtained from Bryan LaBeff, P.O. Box 60580, Midland, Texas 79711, (915) 563-2380. TRD-9706800.

Edwards Aquifer Authority, Legal Committee, met at 1615 North St. Marys Street, San Antonio, May 27, 1997 at 6:00 p.m. Information may be obtained from Sally Tamez-Salas, 1615 North St. Marys Street, San Antonio, Texas 78212, (210) 222-2204. TRD-9706773.

Edwards Aquifer Authority, Research and Technology Committee, met at 1615 North St. Marys Street, San Antonio, May 28, 1997 at 10:00 a.m. Information may be obtained from Sally Tamez-Salas, 1615 North St. Marys Street, San Antonio, Texas 78212, (210) 222-2204. TRD-9706774.

Edwards Aquifer Authority, Aquifer Management Planning Committee, met at 1615 North St. Marys Street, San Antonio, May 28, 1997 at 12:30 p.m. Information may be obtained from Sally Tamez-Salas, 1615 North St. Marys Street, San Antonio, Texas 78212, (210) 222-2204. TRD-9706775.

Edwards Aquifer Authority, Administrative Committee, met at 1615 North St. Marys Street, San Antonio, May 28, 1997 at 3:00 p.m. Information may be obtained from Sally Tamez-Salas, 1615 North St. Marys Street, San Antonio, Texas 78212, (210) 222-2204. TRD-9706776.

Edwards Aquifer Authority, Permits Committee, met at 1615 North St. Marys Street, San Antonio, May 28, 1997 at 5:00 p.m. Information may be obtained from Sally Tamez-Salas, 1615 North St. Marys Street, San Antonio, Texas 78212, (210) 222-2204. TRD-9706777.

Hays County Appraisal District, Appraisal Review Board, met at 21001 North IH35, Kyle, May 28, 1997 at 9:00 a.m. Information may be obtained from Lynnell Sedlar, 21001 North IH35, Kyle, Texas 78640, (512) 268-2522. TRD-9706801.

24th Judicial District Community Supervision and Corrections Department, Victoria Area Board of District Judges, met at Victoria County Courthouse, 135th District Courtroom, Third Floor, 115 North Bridge Street, Victoria, May 28, 1997 at 4:45 p.m. Information may be obtained from Janet Duge, P.O. Box 165, Victoria, Texas 77902, (512) 575-0201. TRD-9706798.

Kendall Appraisal District, Appraisal Review Board, will meet at 121 South Main Street, Boerne, June 10, 1997 at 9:00 a.m. Information may be obtained from Leta Schlinke, P.O. Box 788, Boerne, Texas 78006, (210) 249-8012, fax: (210) 249-3975. TRD-9706781.

Kendall Appraisal District, Appraisal Review Board, will meet at 121 South Main Street, Boerne, June 11, 1997 at 9:00 a.m. Information may be obtained from Leta Schlinke, P.O. Box 788, Boerne, Texas 78006, (210) 249-8012, fax: (210) 249-3975. TRD-9706782.

Kendall Appraisal District, Appraisal Review Board, will meet at 121 South Main Street, Boerne, June 12, 1997 at 9:00 a.m. Information may be obtained from Leta Schlinke, P.O. Box 788, Boerne, Texas 78006, (210) 249-8012, fax: (210) 249-3975. TRD-9706783.

Kendall Appraisal District, Appraisal Review Board, will meet at 121 South Main Street, Boerne, June 16, 1997 at 9:00 a.m. Information may be obtained from Leta Schlinke, P.O. Box 788, Boerne, Texas 78006, (210) 249-8012, fax: (210) 249-3975. TRD-9706784.

Kendall Appraisal District, Appraisal Review Board, will meet at 121 South Main Street, Boerne, June 17, 1997 at 9:00 a.m. Information may be obtained from Leta Schlinke, P.O. Box 788, Boerne, Texas 78006, (210) 249-8012, fax: (210) 249-3975. TRD-9706785.

Kendall Appraisal District, Appraisal Review Board, will meet at 121 South Main Street, Boerne, June 18, 1997 at 9:00 a.m. Information may be obtained from Leta Schlinke, P.O. Box 788, Boerne, Texas 78006, (210) 249-8012, fax: (210) 249-3975. TRD-9706786.

Kendall Appraisal District, Appraisal Review Board, will meet at 121 South Main Street, Boerne, June 19, 1997 at 9:00 a.m. Information may be obtained from Leta Schlinke, P.O. Box 788, Boerne, Texas 78006, (210) 249-8012, fax: (210) 249-3975. TRD-9706787.

Kendall Appraisal District, Appraisal Review Board, will meet at 121 South Main Street, Boerne, June 23, 1997 at 9:00 a.m. Information may be obtained from Leta Schlinke, P.O. Box 788, Boerne, Texas 78006, (210) 249-8012, fax: (210) 249-3975. TRD-9706788.

Kendall Appraisal District, Appraisal Review Board, will meet at 121 South Main Street, Boerne, June 24, 1997 at 9:00 a.m. Information may be obtained from Leta Schlinke, P.O. Box 788, Boerne, Texas 78006, (210) 249-8012, fax: (210) 249-3975. TRD-9706789.

Kendall Appraisal District, Appraisal Review Board, will meet at 121 South Main Street, Boerne, June 25, 1997 at 9:00 a.m. Information may be obtained from Leta Schlinke, P.O. Box 788, Boerne, Texas 78006, (210) 249-8012, fax: (210) 249-3975. TRD-9706790.

Kendall Appraisal District, Appraisal Review Board, will meet at 121 South Main Street, Boerne, June 26, 1997 at 9:00 a.m. Information may be obtained from Leta Schlinke, P.O. Box 788, Boerne, Texas 78006, (210) 249-8012, fax: (210) 249-3975. TRD-9706791.

Kendall Appraisal District, Appraisal Review Board, will meet at 121 South Main Street, Boerne, June 30, 1997 at 9:00 a.m. Information may be obtained from Leta Schlinke, P.O. Box 788, Boerne, Texas 78006, (210) 249-8012, fax: (210) 249-3975. TRD-9706792.

Limestone County Appraisal District, Appraisal Review Board, met at 200 State Street, Groesbeck, May 27, 1997, at 9:00. Information may be obtained from Karen Wietzikoski, 200 State Street, Groesbeck, Texas 76642, (817) 729-3009. TRD-9706779.

Limestone County Appraisal District, Appraisal Review Board, will meet at 200 State Street, Groesbeck, June 18-20 and 23-35, 1997, at 9:00. Information may be obtained from Karen Wietzikoski, 200 State Street, Groesbeck, Texas 76642, (817) 729-3009. TRD-9706780.

Lower Rio Grande Valley Tech Prep Associate Degree Consortium, Board of Directors, met at Best Western Palm Aire Motel, 415 South International Boulevard, Weslaco, May 28, 1997 at Noon. Information may be obtained from Pat Bubb, TSTC Conference Center, Harlingen, Texas 78550-3697, (210) 425-0729. TRD-9706810.

Texas Panhandle Mental Health Authority, Board of Trustees, met at 1501 South Polk Street, Second Floor, Amarillo, May 29, 1997 at 10:30 a.m. Information may be obtained from Shirley Hollis, P.O. Box 3250, Amarillo, Texas 79116-3250, (806) 349-5680, fax: (806) 337-1035. TRD-9706778.

Upper Leon River Municipal Water District, Board of Directors, met at General Office, located off FM 2861, Lake Proctor Dam, Comanche, May 26, 1997 at 6:30 p.m. TRD-9706764.

West Central Texas Council of Governments, Executive Committee, met at 1025 EN Tenth Street, Abilene, May 28, 1997 at 12:45 p.m. Information may be obtained from Brad Helbert, 1025 EN 10th Street, Abilene, Texas 79601, (915) 672-8544. TRD-9706806.

Meetings filed May 23, 1997

Alamo Area Council of Governments, Area Judges, met at 118 Broadway, Suite 400, San Antonio, May 28, 1997 at 11:00 a.m. Information may be obtained from Al J. Notzon III, 118 Broadway, Suite 400, San Antonio, Texas 78205, (210) 225-5201. TRD-9706833.

Alamo Area Council of Governments, Board of Directors, met at 118 Broadway, Suite 400, San Antonio, May 28, 1997 at 1:00 p.m. Information may be obtained from Al J. Notzon III, 118 Broadway, Suite 400, San Antonio, Texas 78205, (210) 225-5201. TRD-9706832.

Andrews Center, Board of Trustees, met at 2323 West Front Street, Room 208, Tyler, May 29, 1997 at 3:00 p.m. Information may be obtained from Richard J. DeSanto, CEO, P.O. Box 4730, Tyler, Texas 75712, (903) 535-7338. TRD-9706821.

Austin-Travis County MHMR Center, Finance and Control Committee, met at 1430 Collier Street, Board Room, Austin, May 27, 1997 at Noon. Information may be obtained from Sharon Taylor, 1430 Collier Street, Austin, Texas 78704, (512) 440-4031. TRD-9706816.

Dallas Area Rapid Transit, Audit Committee, met at 1401 Pacific Avenue, Conference Room B, First Floor, Dallas, May 27, 1997 at 11:00 a.m. Information may be obtained from Paula J. Bailey, DART, P.O. Box 660163, Dallas, Texas 75266-0163, (214) 749-3256. TRD-9706855.

Dallas Area Rapid Transit, Committee of the Whole, met at 1401 Pacific Avenue, Conference Room C, First Floor, Dallas, May 27, 1997 at 1:00 p.m. Information may be obtained from Paula J. Bailey, DART, P.O. Box 660163, Dallas, Texas 75266-0163, (214) 749-3256. TRD-9706859.

Dallas Area Rapid Transit, Board of Directors, met at 1401 Pacific Avenue, Board Room, First Floor, Dallas, May 27, 1997 at 6:30 p.m. Information may be obtained from Paula J. Bailey, DART, P.O. Box 660163, Dallas, Texas 75266-0163, (214) 749-3256. TRD-9706856.

Dallas Area Rapid Transit, DART Rail Grand Opening Event, met at 2111 Corinth Street, Monroe Shops, Dallas, May 31, 1997 at 10:00 a.m. Information may be obtained from Paula J. Bailey, DART, P.O. Box 660163, Dallas, Texas 75266-0163. (214) 749-3256. TRD-9706858.

Deep East Texas Local Workforce Development Board, Strategic Planning Workgroups/Executive Committee, will meet in Room 202, City Hall, 300 East Shepherd Street, Lufkin, June 4, 1997 at 8:00 a.m. Information may be obtained from Betty J. Brown, P.O. Box 1423, Lufkin, Texas 75902, (409) 634-4432. TRD-9706836.

Golden Crescent Private Industry Council, met at 2401 Houston Highway, Victoria, May 28, 1997 at 6:30 p.m. Information may be obtained from Sandy Heiermann, 2401 Houston Highway, Victoria, Texas 77901, (512) 576-5872. TRD-9706842.

Nueces River Authority, Board of Directors, met at Nolan Ryan's Waterfront Restaurant, on Highway 72, 7 miles west of Three Rivers, Texas, May 29, 1997 at 9:30 a.m. Information may be obtained from Con Mims, P.O. Box 349, Uvalde, Texas 78802, (210) 278-6810. TRD-9706843.

Riceland Regional Mental Health Authority, Program of Services Committee Meeting, met at 4910 Airport, Rosenberg, May 29, 1997

at 8:30 a.m. Information may be obtained from Marjorie Dornak, P.O. Box 860, Wharton, Texas 77488, (409) 532-3098, TRD-9706813.

Wood County Appraisal District, Board of Directors, met at 210 Clark Street, Quitman, May 29, 1997 at 1:30 p.m. Information may be obtained from W. Carson Wages or Rhonda Powell, P.O. Box 518, Quitman, Texas 75783-0518, (903) 763-4891. TRD-9706852.

Meetings filed May 26, 1997

Education Service Center Region One, ESC Work Session, met at 1900 West Schunior, Edinburg, May 28, 1997 at 4:00 p.m. Information may be obtained from Sylvia R. Hatton, 1900 West Schunior, Edinburg, Texas 78539, (210) 383-5611. TRD-9706875.

Meetings filed May 27, 1997

Central Texas Council of Governments, Emergency Officer Meeting and Executive Session, met at 302 East Central Avenue, Belton, May 29, 1997 at Noon. Information may be obtained from A.C. Johnson, 302 East Central Avenue, Belton, Texas, 76513, (817) 939-1801. TRD-9706913.

East Texas Council of Governments, Northeast Texas Air Care Policy Committee, will meet at 411 Club Drive, Longview, June 4, 1997 at 1:30 p.m. Information may be obtained from Glynn Knight, 3800 Stone Road, Kilgore, Texas 75662, (903) 984-8641. TRD-9706910.

Millersview-Doole Water Supply Corporation, Board of Directors, met at Corporation Office, 1 block west of FM 765 and FM 2134, June 2, 1997 at 8:00 p.m. Information may be obtained from Glenda M. Hampton, P.O. Box 130, Millersview, Texas 76862-0130, (915) 483-5438. TRD-9706881.

Permian Basin Regional Planning Commission, Permian Basin Solid Waste Advisory Committee, will meet at 2910 La Force Boulevard, June 5, 1997 at 1:30 p.m. Information may be obtained from Terri Moore, P.O. Box 60660, Midland, Texas 79711, (915) 563-1061. TRD-9706920.

Texas Rural Communities, Inc., Board of Directors, will meet at One Horseshoe Bay Boulevard, Horseshoe Bay, June 3, 1997 at

12:30 p.m. Information may be obtained from Leslie Janca, 1016 LaPosada Drive, Suite 200, Austin, Texas 78752, (512) 458-1016. TRD-9706952.

Upshur County Appraisal District, Board of Directors, met at Warren and Trinity Streets, Gilmer, May 30, 1997 at 1:00 p.m. Information may be obtained from Louise Stracener, P.O. Box 280, Gilmer, Texas 75644-0280, (903) 843-3041. TRD-9706876.

West Central Texas Council of Governments, Abilene MPO Urban Transportation Policy Board, Continuous Improvement Committee, will meet at 1025 EN 10th Street, Abilene, June 17, 1997 at 1:30 p.m. Information may be obtained from James K. Compton, P.O. Box 3195, Abilene, Texas 79604, (915) 672-8544. TRD-9706912.

Meetings filed May 28, 1997

50th Judicial District, Juvenile Board, will meet at District Courtroom, Knox County Courthouse, Benjamin, June 4, 1997, at Noon. Information may be obtained from David W. Hajek, (817) 888-2852. TRD-9706955.

Hood County Appraisal District, Appraisal Review Board, will meet at 1902 West Pearl Street, District Office, Granbury, June 5, 1997 at 9:00 a.m. Information may be obtained from Harold Chesnut, P.O. Box 819, Granbury, Texas 76048, (817) 573-2471. TRD-9706959.

Lamb County Appraisal District, Board of Directors, will meet at 331 LFD Drive, Littlefield, June 12, 1997 at 6:00 p.m. Information may be obtained from Vaughn E. McKee, P.O. Box 950, Littlefield, Texas 79339-0950, (806) 385-6474. TRD-9706961.

South Texas Workforce Development Board, met at 901 Kennedy Street, Zapata, May 29, 1997 at 4:00 p.m. with emergency revised agenda. Information may be obtained from Myrna V. Herbst, P.O. Box 1757, Laredo, Texas 78044-1757, (210) 722-0546. TRD-9706962.

Upshur County Appraisal District, Appraisal Review Board, met at Warren and Trinity Streets, Gilmer, June 2, 1997 at 8:30 a.m. Information may be obtained from Louise Stracener, P.O. Box 280, Gilmer, Texas 75644-0280, (903) 843-3041. TRD-9706968.

IN ADDITION

The *Texas Register* is required by statute to publish certain documents, including applications to purchase control of state banks, notices of rate ceilings, changes in interest rate and applications to install remote service units, and consultant proposal requests and awards.

To aid agencies in communicating information quickly and effectively, other information of general interest to the public is published as space allows.

Texas Department of Agriculture

Egg Penalty Matrix

The Texas Department of Agriculture (the department) is publishing the following administrative penalty matrix to inform the regulated public. This matrix has been developed for the enforcement of the Texas Agriculture Code (the "Code"), Chapter 132, and the rules adopted pursuant to this chapter. The department's authority for enforcement of Chapter 132 is found in §12.020 of the Code, whereby the department may assess and collect administrative penalties against violators of Chapter 132 in an amount not to exceed \$500 per violation. Each day that a violation occurs or continues to occur may be considered a separate violation for purposes of administrative penalty assessment. This administrative penalty matrix is designed to ensure that the department's administrative enforcement actions are fair, uniform, consistent, and appropriate. The penalties provided in the matrix are intended to deter future violations of the Code and to penalize violators. This matrix replaces the one previously published in the December 2, 1994 issue of the *Texas Register* (19 TexReg 9553). This matrix is effective immediately upon its publication in the *Texas Register*.

The violations covered by the matrix are broken into categories based upon the specific type of violation or the type of threat posed to the consumer by the violative conduct. Each category of violation is then broken down by class based upon the seriousness of the violation. The most serious violations are listed under Class I and the least serious under Class III. Penalties are then established by determining whether the violation is a first violation or a repeat violation. Second and repeat violations are those which follow a previous violation of any type for which an administrative enforcement action was taken. While some violations may be appropriately placed in a number of different categories, each violation has been placed under the category most appropriate for effective enforcement.

Category A covers violations which pose a potential threat to human health. This category carries with it the most severe administrative penalties because it covers the most serious type of violations. It is the department's highest priority to enforce the portions of this chapter which ensure the health and safety of the consumer. The

highest penalties apply to violations which threaten the health of the consumer and are inconsistent with a direct order of the department that the activity involved not be undertaken. For example, the highest penalty assessed under the matrix is for violation of a stop sale order, where an individual has sold eggs despite having been told by the department that the eggs cannot be sold.

Category B covers violations that mislead the consumer and are generally related to labeling. The penalties proposed for violations of this type are to ensure that the public is not misled by representations regarding egg quality, size, or grade.

Category C covers violations that interfere with the department's ability to protect consumers, either by failing to maintain required records or by refusing to allow the department access to records. A number of other reporting violations are also included within Category C.

Category D covers violations that constitute a substantial disregard for the licensing and administration provisions of the law, but which do not directly threaten the health of the consumer. This category includes a number of licensing and reporting violations which are less serious than those in Category C.

Category E covers violations that involve a failure to pay or collect fees provided under the chapter. This category carries the smallest penalties because the violations pose no threat to the consumer.

Penalties calculated pursuant to the matrix may be adjusted upward or downward based on previous compliance and efforts to correct any error. Such adjustments may be made on a case by case basis.

EGG ADMINISTRATIVE PENALTY MATRIX.

Category A: Potential Human Health Hazard.

I. 132.071. Selling eggs in violation of a Stop Sale Order that could affect Human Health. 132.082. Selling inedible eggs.

II. 132.045. Failure to handle eggs under reasonably sanitary conditions. 132.046. Failure of shipped eggs to be transported under refrigeration at the temperature set by TDA. 132.046. Failure of eggs to be stored and/or maintained at the temperature set by TDA.

III. 132.044. Failure to remove from retail display on a daily basis cartons containing cracked eggs, leaking eggs or some combination of cracked and leaking eggs.

Category B: Misleading the Consumer.

I. 132.041. Grading or sizing eggs by a method other than by candling and weighing. 132.042. Offering for sale eggs which are offered as graded eggs but are not graded by either consumer or wholesale grade and weight classes. 132.044. Grade of eggs not stated. 132.044. Size of eggs not stated. 132.044. Quantity of eggs not stated. 132.044. Reference is made to grade or type other than that claimed.

II. 132.044. Failure of each breakaway portion of a container to contain full information about the size and grade, quantity of eggs in divided portion, Texas egg license number and address of grader/packer.

III. 132.084. Advertising eggs by price without indicating the full, correct and unabbreviated designation of size and grade. 132.084. Advertising or selling shell eggs below grade "A" by advertising as fresh, yard, selected, hennery, etc. or words having a similar meaning.

Category C: Impeding Departmental Powers.

I. 132.005. Denial of access to business during normal business hours to take samples of eggs and containers. 132.006. Failure of out-of-state location shipping eggs to Texas to make records or invoices available for TDA inspection, where size and grade determinations are made out of state. 132.061. Failure to make records available at all reasonable times for inspection by TDA. 132.071. Selling eggs in violation of a Stop Sale Order not affecting Human Health. 132.072. Failure of licensee under probated suspension to limit practice to the areas prescribed by TDA. 132.072. Failure of licensee under probated suspension to comply with continuing education requirements set by TDA. 132.072. Failure of licensee under probated suspension to report to TDA as required.

II. 132.061. Failure of a licensed dealer/wholesaler or processor to keep on file for two years a complete record of all eggs bought or sold, including name of person to who sold or from whom bought, number of cases in each transaction, and the date of the transaction. 132.062. Failure of licensed dealer/wholesaler or processor to deliver with each transaction, sale or delivery a signed invoice listing date, quantity, grade and size of eggs.

III. 132.023. Failure of out-of-state license applicant to file with TDA a designation of resident agent for service of process.

Category D: Licensing and Administration.

I. 132.021. Buying or selling eggs in Texas without first obtaining a license. 132.021. Failure of a licensed dealer/wholesaler, processor

or broker to submit a monthly/quarterly egg reporting form not later than the tenth day of the following month/quarter. 132.021. Failure of a licensed dealer/wholesaler to accurately report egg business during any month/quarter. 132.022. Failure to apply for licensing under the appropriate category. 132.022. Failure of dealer/wholesaler to obtain a separate license for each separate facility from which eggs are graded and/or stored. 132.022. Failure of processor to obtain a separate license for each separate facility from which eggs are processed. 132.024. Buying or selling eggs after August 31 of any license year without renewing license.

II. 132.044. Failure of all required labeling information to be placed in a legible fashion on the top panel of carton in a space free of any competing printed matter. 132.044. Failure of printed matter to contrast sharply with the background of the space imprinted. 132.046. Failure of shipped eggs to be at least grade "A".

III. 132.041. Grading and sizing at some place other than licensee's place of business in Texas or designated location out of state. 132.041. Grading or sizing of eggs by someone unlicensed under this chapter. 132.044. Failure to label eggs as ungraded where appropriate, followed by producer's name, only when packed by producer and sold directly to consumer. 132.044. Failure of a producer exempt under 132.002 to label stock cartons with "Produced by" followed by producer's name and address where eggs are sold by producer directly to consumer. 132.044. Failure to provide packer's license number on label. 132.044. Failure of label to contain required information in legible type or print on either or both ends.

Category E: Failing to Pay or Collect Fees.

I. 132.006. Failure of out-of-state licensee to reimburse TDA for the actual and necessary expenses incurred in inspections authorized under this section. 132.021. Failure to submit the correct fee with the monthly reporting form where due.

II. 132.022. Failure of dealer/wholesaler to pay appropriate license fee according to volume of eggs handled at each separate facility. 132.022. Failure of processor to pay appropriate license fee according to volume of eggs handled at each separate facility. 132.025. Failure of applicant to pay initial license fee prior to issuance of license. 132.025. Failure of license renewal applicant to pay license renewal fee prior to August 31 of previous license year. 132.025. Failure to pay late fee charged for late payment of renewal fee.

III. 132.043. A licensed processor fails to pay fee on first use or change in form of eggs processed. 132.043. A licensee who first establishes grade, size and classification of eggs fails to collect fee on first sale of eggs.

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graphic

Issued in Austin, Texas, on May 27, 1997.

TRD-9706940

Dolores Alvarado Hibbs
Deputy General Counsel



Coastal Coordination Council

Notice and Opportunity to Comment on Requests for Consistency Agreement/Concurrence under the Texas Coastal Management Program

On January 10, 1997, the State of Texas received federal approval of the Coastal Management Program (CMP) (62 Federal Register pp. 1439-1440). Under federal law, federal agency activities and actions affecting the Texas coastal zone must be consistent with the CMP goals and policies identified in 31 TAC 501. Requests for federal consistency review were received for the following projects(s) during the period of May 20, 1997, through May 27, 1997:

FEDERAL AGENCY ACTIONS:

Applicant: Sidney Schwartz; Location: Colorado River, Selkirk Island, 321 Selkirk Road, Matagorda, Matagorda County, Texas; Project Number: 97-0140-F1; Description of Proposed Action: The applicant proposes to retain a 4 foot by 22 foot pier with a 12 foot by 24 foot L-head and add a 12 foot boat lift with a 5 foot by 8 foot access walkway; Type of Application: U.S.C.O.E. permit application #20943 under §10 of the Rivers and Harbors Act of 1899 (33 U.S.C.A. 403).

Applicant: Gerald Turner; Location: Colorado River, Selkirk Island, 323 Selkirk Road, Matagorda, Matagorda County, Texas; Project Number: 97-0141-F1; Description of Proposed Action: The applicant proposes to retain a 12 foot by 24 foot boat lift, a 16 foot by 26 foot deck, and associated piers and walkways and to add to the complex a 12 foot by 20 foot boat lift with a 3 foot by 15 foot access walkway; Type of Application: U.S.C.O.E. permit application #20944 under §10 of the Rivers and Harbors Act of 1899 (33 U.S.C.A. 403).

Applicant: Henry-Zamora Venture; Location: On the Gulf side of South Padre Island, between the Sheraton Hotel, 310 Padre Blvd.,

and Bridgepoint Condominiums, 334 Padre Blvd., South Padre Island, Cameron County, Texas; Project Number: 97-0143-F1; Description of Proposed Action: The applicant proposes to fill 4.24 acres of isolated, freshwater wetlands with 10,000 cubic yards of sand and provide mitigation to construct a 13.59 acre Schlitterbahn waterpark; Type of Application: U.S.C.O.E. permit application under §10 of the Rivers and Harbors Act of 1899 (33 U.S.C.A. 403), and §404 of the Clean Water Act (33 U.S.C.A. §§125-1387).

Applicant: Enron Oil & Gas; Location: East Breaks, Block 250, Lease OCS-G 17242, OCS Federal Offshore Waters, Gulf of Mexico; Project Number: 97-0142-F1; Type of Application: Initial Plan of Exploration, Title 30 CFR 250.33 (f) and (h).

Pursuant to §306(d)(14) of the Coastal Zone Management Act of 1972 (16 U.S.C.A. §§1451-1464), as amended, interested parties are invited to submit comments on whether a proposed action should be referred to the Coastal Coordination Council for review and whether the action is or is not consistent with the Texas Coastal Management Program goals and policies. All comments must be received within 30 days of publication of this notice and addressed to Ms. Janet Fatheree, Council Secretary, 1700 North Congress Avenue, Room 617, Austin, Texas 78701-1495.

Issued in Austin, Texas, on May 28, 1997.

TRD-9706965
Garry Mauro
Chairman
Coastal Coordination Council
Filed: May 28, 1997



Comptroller of Public Accounts

Local Sales Tax Rate

[graphic]

Issued in Austin, Texas, on May 27, 1997.

TRD-9706953

Martin Cherry

Chief, General Law

Comptroller of Public Accounts

Filed: May 27, 1997



Office of the Consumer Credit Commissioner

Notice of Rate Ceiling

The Consumer Credit Commissioner of Texas has ascertained the following rate ceilings by use of the formulas and methods described in Title 79, Texas Civil Statutes, Article 1.04, as amended (Texas Civil Statutes, Article 5069-1.04).

[graphic]

Issued in Austin, Texas, on May 20, 1997.

TRD-9706718

Leslie L. Pettijohn

Commissioner

Office of Consumer Credit Commissioner

Filed: May 21, 1997

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Texas Department of Health

Licensing Action for Radioactive Materials

The Texas Department of Health has taken actions regarding licenses for the possession and use of radioactive materials as listed in the table below. The subheading labeled "Location" indicates the city in which the radioactive material may be possessed and/or used. The location listing "Throughout Texas" indicates that the radioactive material may be used on a temporary basis at job sites throughout the state.

graphic

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[graphic]

In issuing new licenses and amending and renewing existing licenses, the Texas Department of Health, Bureau of Radiation Control, has determined that the applicants are qualified by reason of training and experience to use the material in question for the purposes requested in accordance with Texas Regulations for Control of Radiation in such a manner as to minimize danger to public health and safety or property and the environment; the applicants' proposed equipment, facilities, and procedures are adequate to minimize danger to public health and safety or property and the environment; the issuance of the license(s) will not be inimical to the health and safety of the public or the environment; and the applicants satisfy any applicable special requirements in the Texas Regulations for Control of Radiation.

This notice affords the opportunity for a hearing on written request of a licensee, applicant, or "person affected" within 30 days of the date of publication of this notice. A "person affected" is defined as a person who is resident of a county, or a county adjacent to the county, in which the radioactive materials are or will be located, including any person who is doing business or who has a legal interest in land in the county or adjacent county, and any local government in the county; and who can demonstrate that he has suffered or will suffer actual injury or economic damage due to emissions of radiation. A licensee, applicant, or "person affected" may request a hearing by writing Richard A. Ratliff, P.E., Chief, Bureau of Radiation Control (Director, Radiation Control Program), 1100 West 49th Street, Austin, Texas 78756-3189.

Any request for a hearing must contain the name and address of the person who considers himself affected by Agency action, identify the subject license, specify the reasons why the person considers himself

affected, and state the relief sought. If the person is represented by an agent, the name and address of the agent must be stated.

Copies of these documents and supporting materials are available for inspection and copying at the office of the Bureau of Radiation Control, Texas Department of Health, Exchange Building, 8407 Wall Street, Austin, Texas, from 8:00 a.m. to 5:00 p.m. Monday-Friday (except holidays).

Issued in Austin, Texas, on May 28, 1997.

TRD-9706969

Susan K. Steeg

General Counsel

Texas Department of Health

Filed: May 28, 1997

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Notice of Consultant Contract Award

In accordance with the provisions of Chapter 2254, Subchapter B of the Texas Government Code, the Texas Department of Health (department) announces this notice of consultant contract award.

The related Request for Proposal (RFP) was published in the March 22, 1996, issue of the *Texas Register* (21 TexReg 2426). An award relating to Phase 1, Tasks 1, 2, and 3 as detailed in the RFP was made to The Lewin Group, Inc., and was published in the July 5, 1996, issue of the *Texas Register* (21 TexReg 6269). This award relates to Phase 2 and Phase 3 as detailed in the RFP.

In Phase 2, the consultant will perform an analysis on some specific areas within the Medicaid Managed Care program. These areas may include, but are not limited to, producing a feasibility study of the various aspects of implementing managed care in the Medicaid

program, offering recommendations to the current reimbursement protocols relating to Graduate Medical Education (GME) payments, analyzing the vendor drug program and offering recommendations on alternatives to consider for the inclusion of this program in future managed care arrangements, determining the impact of managed care negotiations and implementations upon the hospital selective contracting process, analyzing the integration of Long Term Care services and Mental Health services into Medicaid Managed Care and/or analyzing the impact of Medicaid Managed Care growth on Disproportionate Share Program hospitals.

In Phase 2, the consultant is required to provide written reports to the department six weeks after the award of any specific study requested by the department.

In Phase 3, the consultant must define, specify and develop requirements related to the acquisition, operation and maintenance of a central data library and warehouse including, but not limited to, the hardware, network, software, applications, data identification, data extraction, data loading/integration and editing, the location, configuration, connectivity, operations development and maintenance components.

In Phase 3, a report that the consultant is required to provide to the department 8 weeks after the execution of the contract will consist of the definitions, specifications and development of requirements related to the acquisition, construction, operation and maintenance of a central data library and warehouse including, but not limited to, the hardware, network, software, applications, data identification, data extraction, connectivity, operations development and maintenance components.

In Phase 3, a report that the consultant is required to provide to the department 12 weeks after the execution of the contract will include definitions and specifications for the application development and maintenance requirements that a central data library and warehouse would need.

Additional reports that the consultant will be required to provide to the Texas Department of Health in Phase 3, 14 to 16 weeks after the execution of the contract, will include a recommendation for an operation and management model to include oversight, operation and ownership of the central data library and warehouse hardware or related data services and the consultant defining and specifying the requirements for a recommended implementation plan for the Medicaid program to follow in developing and implementing a central data library and warehouse or services contract.

The consultant selected for the project for Phase 2 and Phase 3 is The Lewin Group, Inc., 9302 Lee Highway, Suite 500, Fairfax, Virginia 22031. The total value of Phase 2 of the contract is not to exceed \$230,000. The total value of Phase 3 of the contract is not to exceed \$265,000. The contract will begin upon execution and is scheduled to end on or before October 31, 1997, unless extended by written amendment.

For more information, please contact Larry Fisher, Bureau of Statistics and Analysis, Texas Department of Health, 1100 West 49th Street, Austin, Texas 78756. Telephone (512) 794-6894.

Issued in Austin, Texas, on May 27, 1997.

TRD-9706954
Susan K. Steeg
General Counsel

Texas Department of Health
Filed: May 27, 1997



Texas Department of Health

Notice of Request for Proposals for The Dental Health Assessment of Texas Health Steps Population

PURPOSE: The Texas Department of Health (department) is requesting proposals for two separate dental health assessments of the Texas Health Steps (THSteps) population. THSteps is known as the Early Periodic Screening, Diagnosis, and Treatment Program (EPSDT) at the federal level. The first assessment is a study of children in the second and eighth grades enrolled in the free-lunch program in public schools in Texas. The second assessment will evaluate the extent of dental disease of two-year-olds enrolled in THSteps. Both assessments will determine the number and percent of recipients who have no cavities, have no untreated cavities, and require referrals for appropriate dental care.

ELIGIBLE APPLICANTS: All governmental, public, non-profit private, or for-profit private entities that can demonstrate the expertise necessary to carry out the described services are encouraged to submit proposals. Applicants may submit proposals to conduct either or both dental assessments.

DENTAL HEALTH ASSESSMENT OF SCHOOL-AGE CHILDREN:

The department will provide a random sample of public schools statewide participating in the free-lunch program from which clinical surveys will assess the dental health of second- and eighth-grade classes. In May 1997, a total of 21,544 public schools (grades 1-8) participated in the free-lunch program, 4,755 of which offered either second or eighth-grade classes, or both. The applicant must complete at least 200 dental assessments among the selected schools for each grade. The successful applicant also must coordinate assessment activities with appropriate school administrators. A consent form will be developed in conjunction with the department for distribution to the parents and guardians of all children in the selected classes. In addition to securing parental/guardian permission, the consent form will request demographic information and contain additional clinical survey questions. The applicant will schedule and administer clinical dental examinations using criteria developed with the department. The exam must evaluate whether the child 1) ever had cavities and 2) had untreated cavities at the time of the exam. No radiographs will be required. The applicant should make every effort to achieve a participation rate of 70 percent of the students on the free lunch program in each of the selected classes. The applicant will provide a data record for every child with a returned consent form containing both the consent form data and the results of the clinical dental exam. This file will be provided electronically. Reports must be submitted to monitor progress on a regular basis. Dental exams must be completed within four months of initiating the clinical portion of the dental assessment. At the end of the contract period, the applicant will submit a complete report summarizing the project results.

DENTAL ASSESSMENT OF TWO-YEAR-OLD CHILDREN:

The department will provide a random sample of two-year-old (24 to 35 months) children enrolled in THSteps to conduct clinical surveys of dental health. As of March 1997, there were 84,350 two-year-old children enrolled in THSteps. The applicant will schedule and administer clinical dental assessments using criteria developed with

the department. The assessment must evaluate the extent of dental disease present. Evaluation criteria will have a specific focus on disease requiring hospitalizations. No radiographs will be required. The applicant must complete at least 100 exams among the selected two-year-olds. The applicant will provide results of the clinical dental evaluation as well as a rating of the child's willingness to cooperate for treatment in an electronic file to the department. Reports must be submitted to monitor progress on a regular basis. Dental exams must be completed within six months of initiating the clinical portion of the dental assessment. At the end of the contract period, the applicant will submit a complete report summarizing the project results.

PROPOSAL GUIDELINES: Interested parties must submit proposals with the following information for each dental assessment: a statement of which dental assessment is being applied for; a description of the method to be used to assure a high response rate; a description of the qualifications and experience of the dental assessment team members; a description of quality control procedures for the assessment process and the entering and editing of the data gathered; a work schedule of the activities with milestones; a budget along with justifications that are consistent with the objectives and the amount of funds requested; the name, address, and phone number of the proposed project director; and the Vendor Identification Number/Tax Identification Number of the applicant.

SELECTION CRITERIA: A committee of the department staff and external reviewers will evaluate proposals and make recommendations to THSteps which will select one proposal for funding for each assessment. Evaluation and funding will be based upon the following criteria (weighted values in parentheses): evidence of the applicant's knowledge and experience in conducting clinical surveys (20%); experience developing clinical surveys (20%); evidence of quality control procedures for the assessment process and the entering and editing of the data gathered (15%); evidence of ability and capacity to provide a clinical survey with valid data and a high response rate (15%); the submission of a realistic work plan and time line (10%); the submission of a budget that is appropriate for the scope and quality needed for the successful completion of the clinical survey (10%); and evidence of the applicant's experience in the preparation of project reports (10%). Indirect costs should be kept to a minimum.

If none of the applicants satisfactorily meets the criteria, the department reserves the right to refrain from making a selection. The department reserves the right not to make an award because of changing funding priorities. After application review and evaluation, an applicant will be selected to negotiate a contract. The final amount of the contract will be determined through negotiations between the department and the applicant. The department reserves the right to adjust the funding allocation during the term of the contract pursuant to the terms of the contract.

DEADLINES: Individuals or agencies interested in submitting a proposal should request a copy of the Request for Proposals from G. M. Nana Lopez, DDS, MPH, at (512) 458-7323. The original plus six copies of the proposal must be received by 5:00 p.m. C.S.T. on July 25, 1997, by G. M. Nana Lopez, DDS, MPH, Texas Department of Health, Room M355, 1100 West 49th Street, Austin, Texas 78756. Application review will be completed by August 31, 1997, with written notification being sent to all applicants on August 31, 1997. Proposals received after the deadline or incomplete proposals will not be evaluated. Faxed copies of proposals will not be accepted.

Issued in Austin, Texas, on May 27, 1997.

TRD-9706914
Susan K. Steeg
General Counsel
Texas Department of Health
Filed: May 27, 1997



Texas Department of Insurance

Insurer Services

The following application has been filed with the Texas Department of Insurance and is under consideration:

Application for incorporation in Texas for Sierra Casualty Insurance Company of Texas, a domestic fire and casualty company. The home office is in Dallas, Texas.

Any objections must be filed within 20 days after this notice was filed with the Texas Department of Insurance, addressed to the attention of Cindy Thurman, 333 Guadalupe Street, M/C 305-2C, Austin, Texas 78701.

Issued in Austin, Texas, on May 22, 1997.

TRD-9706808
Bernice Ross
Deputy Chief Clerk
Texas Department of Insurance
Filed: May 22, 1997



Texas Department of Insurance

Notice

The Commissioner of Insurance, or his designee, will consider approval of a rate filing request submitted by Scottsdale Indemnity Company proposing rates outside the flexibility band promulgated by the Commissioner of Insurance pursuant to Texas Insurance Code Annotated art. 5.101, §3(g). They are proposing a rate of -50% below the benchmark for classes 7908 and 7909 in commercial automobile. They are not proposing revisions to the other percentages on file.

Copies of the filing may be obtained by contacting Gifford Ensey, at the Texas Department of Insurance, Legal and Compliance, P.O. Box 149104, Austin, Texas 78714-9104, extension (512) 475-1761.

This filing is subject to Department approval without a hearing unless a properly filed objection, pursuant to Art. 5.101, §3(h), is made with the Chief Actuary, P&C, Philip Presely, at the Texas Department of Insurance, MC 105-5F, P.O. Box 149104, Austin, Texas 78701 within 30 days after publication of this notice.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706759
Bernice Ross
Deputy Chief Clerk
Texas Department of Insurance
Filed: May 21, 1997



Notice of Applications by Small Employer Carriers to be Risk-Assuming Carriers

Notice is given to the public of the application of the listed small employer carrier to be a risk-assuming carrier under Texas Insurance Code Article 26.52. A small employer carrier is defined by Chapter 26 of the Texas Insurance Code as a health insurance carrier that offers, delivers or issues for delivery, or renews small employer health benefit plans subject to the chapter. A risk-assuming carrier is defined by Chapter 26 of the Texas Insurance Code as a small employer carrier that elects not to participate in the Texas Health Reinsurance System. The following small employer carrier has applied to be a risk-assuming carrier:

Companion Life Insurance Company

The application is subject to public inspection at the offices of the Texas Department of Insurance, Financial Monitoring Unit, 333 Guadalupe, Hobby Tower 3, 3rd Floor, Austin, Texas.

If you wish to comment on this application to be a risk-assuming carrier, you must submit your written comments within 60 days after publication of this notice in the *Texas Register* to Caroline Scott, Chief Clerk, Mail Code 113-1C, Texas Department of Insurance, P. O. Box 149104, Austin, Texas 78714-91204. An additional copy of the comments must be submitted to Mike Boerner, Managing Actuary, Actuarial Division of the Financial Program, Mail Code 304-3A, Texas Department of Insurance, P. O. Box 149104, Austin, Texas 78714-9104. Upon consideration of the application, if the Commissioner is satisfied that all requirements of law have been met, the Commissioner or his designee may take action to approve the application to be a risk-assuming carrier.

Issued in Austin, Texas, on May 26, 1997.

TRD-9706966

Bernice Ross

Deputy Chief Clerk

Texas Department of Insurance

Filed: May 28, 1997



Notice of Public Hearing

The Commissioner of Insurance, at a public hearing under Docket Number 2295 scheduled for July 8, 1997 at 10:00 a.m. in Room 100 of the William P. Hobby Jr. State Office Building, 333 Guadalupe Street in Austin, Texas, will consider a proposal made in a staff petition. Staff's petition seeks amendment of the Texas Automobile Rules and Rating Manual (the Manual), Rule 14, to amend the plan for installments for premium payments for the Personal Auto Policy. Staff also proposes to amend the Texas Standard Provisions for Automobile Insurance Policies (the Standard Provisions), Personal Auto Policy, Special Instructions in regard to installment payments. Staff's petition (Ref. No. A-0597-15-I) was filed on May 20, 1997.

Staff proposes to amend the Manual's Rule 14 to reduce the percentage of the down payment that is to be required by an insurer writing a Personal Auto Policy that is to be purchased under this rule's installment payment plan. Rule 14 currently allows an insurer to require a down payment of no more than 25% of the total premium for 12-month policies and 40% for 6-month policies. Staff proposes to amend Rule 14 to provide for a down payment of 12.5% of the total premium for a 12-month policy, or 25% of the total premium for

a 6-month policy that is to be paid off under this rule's installment payment plan. For a 12 month policy, the down payment will consist of 1/12 of the total premium (first installment) plus an additional advance premium equal to 1/24 of the total premium (50% of the monthly installment). For a 6 month policy, the down payment will consist of 1/6 of the total premium (first installment) plus an additional advance premium equal to 1/12 of the total premium (50% of the monthly installment).

Staff proposes to amend the Standard Provisions, Personal Auto Policy, Special Instructions, by changing current #11 to #12, and by adding a new #11, titled "Installment Payment Plan" and providing as follows:

"Each insurance company must either print on, stamp on, or attach to the declarations page the following statement: 'We agree to make available to you an installment payment plan as described in Rule 14 of the Texas Automobile Rules and Rating Manual, except when an installment payment plan is prohibited by rule or statute.' "

The affordability of personal automobile insurance causes many consumers to choose not to purchase such insurance. Some consumers have difficulty making the down payments for the Personal Auto Policy as set forth in the current installment payment plan in Manual Rule 14, which requires the down payment to be 40% of the total premium for a 6-month policy and 25% of the total premium for a 12-month policy. One way to address the increasing number of uninsured motorists, particularly those uninsured motorists willing to purchase insurance, but who cannot afford the down payment, is to provide a payment plan with a more favorable down payment. Staff's recommendation will provide that an insurer using this plan shall require a down payment of 12.5% of the total premium for a 12-month policy or 25% for a 6-month policy. The remaining payments would pay off the balance in equal monthly installments and allow the insurer to maintain an additional advance premium of 1/24 of the total premium for 12-month policies and 1/12 of the total premium for 6-month policies. As previously mentioned, Rule 14 currently allows a 25% down payment for 12-month policies and 40% for 6-month policies.

Under Staff's proposal, the additional advance premium should virtually eliminate the need for any further down payments to be made by the insured upon the renewal of a policy and may provide protection to an insurer in the event of a cancellation caused by inadvertent nonpayment of an installment when due. In the event an installment is not paid when due, an additional advance premium may be applied to the insured's account on a pro-rata basis. In other words, at the insurer's option, coverage may be extended until the full amount of the deposit is depleted. By allowing an additional advance premium to be applied on a pro-rata basis, both the insured and the insurer may benefit. The insured may benefit by having continuous coverage for the period of time provided by application of the additional advance premium. The insurer may benefit by having time to ascertain that the installment has not been paid, to mail a cancellation notice, and to avoid providing a period of coverage without paid premium.

Under Staff's recommendation, insurers would continue being allowed to offer other payment options to a new applicant in addition to the Rule 14 plan, but the proposed plan must be made available to each new applicant except when an installment payment plan is prohibited by rule or statute. It appears likely that more applicants

will choose the plan under Rule 14, if amended as proposed, for that plan will clearly be more affordable than Rule 14's current plan.

The recommendation to amend the Special Instructions for the Personal Auto Policy, will assist insurers in complying with the existing requirement set forth in the order that created Rule 14 (Board Order Number 59537, issued April 13, 1992). On page 3 of that order appears the requirement, "The Policy shall include the following statement: 'We agree to make available to you an installment payment plan as described in the Texas Automobile Rules and Rating Manual.' " Board Order Number 59537 did not give any further guidance on how to incorporate the required language into the policy, resulting in some confusion on this issue, but that problem can be eliminated by Staff's proposal.

The requirement of placing the above statement into the policy was to ensure that county mutual insurers offer the installment plan contained in Manual Rule 14. The Board in adopting Board Order Number 59537 clearly intended that the payment plan under Rule 14 apply to county mutual insurers, and placed the requirement in the policy form to which county mutual insurers are subject pursuant to the Insurance Code, Article 5.06 and Article 17.25, Section 5. Article 5.06, with certain exceptions, prohibits motor vehicle insurers from using policy forms other than those adopted by the Commissioner (or formerly by the Board of Insurance). Additionally, the tape recording of the January 15, 1992 meeting of the Board confirms that county mutual companies are subject to Board Order Number 59537, and that they must offer the Rule 14 installment payment plan. That requirement will be more clearly implemented by Staff's proposal to amend the Standard Provisions as set forth above.

Staff further proposes that the required policy language be amended by addition of "except when an installment payment plan is prohibited

by rule or statute." This amendment is necessary due to passage of HB 627, amending Transportation Code Section 601.083, requiring a certified policy to be issued for at least a period of six months and paid in full.

A copy of the petition containing the full text of the proposed amendments to the Manual is available for review in the office of the Chief Clerk of the Texas Department of Insurance, 333 Guadalupe Street, Austin, Texas. For further information or to request copies of the petition, please contact Angie Arizpe at (512) 463-6326; refer to (Ref. Number A-0597-15-I).

Comments on the proposed changes must be submitted in writing within 30 days after publication of the proposal in the *Texas Register*, to the Office of the Chief Clerk, Texas Department of Insurance, P. O. Box 149104, MC 113-2A, Austin, Texas 78714-9104. An additional copy of comments is to be submitted to David Durden, Deputy Commissioner, Property and Casualty Insurance Lines, Texas Department of Insurance, P. O. Box 149104, MC 104-5A, Austin, Texas 78714-9104.

This notification is made pursuant to the Insurance Code, Article 5.96, which exempts it from the requirements of the Government Code, Chapter 2001 (Administrative Procedure Act).

Issued in Austin, Texas, on May 21, 1997.

TRD-9706758
Bernice Ross
Deputy Chief Clerk
Texas Department of Insurance
Filed: May 21, 1997

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Third Party Administrator Applications

The following third party administrator (TPA) applications have been filed with the Texas Department of Insurance and are under consideration.

Application for admission to Texas of Financial Insurance Management Corporation, a foreign third party administrator. The home office is Metairie, Louisiana.

Application for admission to Texas of MCS Administrative Services, Inc., a foreign third party administrator. The home office is Fountain Valley, California.

Application for admission to Texas of AccuFlex Services, Inc., a foreign third party administrator. The home office is Wilmington, Delaware.

Any objections must be filed within 20 days after this notice was filed with the Secretary of State, addressed to the attention of Charles M. Waits, MC 107-5A, 333 Guadalupe, Austin, Texas 78714-9104.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706760

Bernice Ross

Deputy Chief Clerk

Texas Department of Insurance

Filed: May 21, 1997



Texas Natural Resource Conservation Commission

Notice Of Application For Municipal Solid Waste Permit For The Week Ending May 23, 1997

COUGAR HOLDINGS, INC., D/B/A COUGAR DISPOSAL, INC., 2777 Allen Parkway, Houston, Texas 77019 has applied for an amendment to Permit Number MSW1921, designated Application Number MSW1921-A, to authorize an increase in the vertical expansion to an elevation of approximately 103.6 feet mean sea level. The proposed amendment also authorizes: revisions of the final grades and surface water drainage over the existing site; a perimeter drainage system; inclusion of 15 permanent landfill gas monitoring probes; changes in the groundwater monitoring system. The permittee is authorized to dispose of brush; construction-demolition waste; rubbish; inert material; man-made inert material; trash and yard waste which is free of putrescible; and household waste. In addition, Class II and III industrial plant trash free of putrescibles and Class III inert wastes will be accepted and managed. Petroleum contaminated soil that is within acceptable limits as defined by TNRCC regulations and guidelines will be accepted and disposed of. Solid waste may be accepted, but not limited to, the amount of 750 tons per day. The facility is located on a 114.57-acre site approximately 3.5 miles east of the intersection of East Mount Houston Road and U.S. Highway 59 in Harris County, Texas.

If you wish to request a public hearing, you must submit your request in writing. You must state (1) your name, mailing address and daytime phone number; (2) the application number, TNRCC docket number or other recognizable reference to the application; (3) the statement I/we request an evidentiary public hearing; (4) a brief description of how you, or the persons you represent, would be adversely affected by the granting of the application; and (5) a

description of the location of your property relative to the applicant's operations.

Requests for a public hearing or questions concerning procedures should be submitted in writing to the Chief Clerk's Office, Park 35 TNRCC Complex, Building F, Room 1101, Texas Natural Resource Conservation Commission, Mail Code 105, P.O. Box 13087, Austin, Texas 78711. Individual members of the public who wish to inquire about the information contained in this notice, or to inquire about other agency permit applications or permitting processes, should call the TNRCC Office of Public Assistance, Toll Free, at 1-800-687-4040.

Issued in Austin, Texas, on May 23, 1997.

TRD-9706849

Eugenia K. Brumm, Ph. D.

Chief Clerk

Texas Natural Resource Conservation Commission

Filed: May 23, 1997



Applications for Waste Disposal Permits

Attached are Notices of Applications for waste disposal permits issued during the period of May 19th thru May 23, 1997.

The Executive Director will issue these permits unless one or more persons file written protests and/or a request for a hearing within 30 days after newspaper publication of this notice.

To request a hearing, you must submit the following: (1) your name (or for a group or association, an official representative), mailing address, daytime phone number, and fax number, if any; (2) the name of the applicant and the permit number; (3) the statement "I/we request a public hearing;" (4) a brief description of how you would be adversely affected by the granting of the application in a way not common to the general public; (5) the location of your property relative to the applicant's operations; and (6) your proposed adjustments to the application/permit which would satisfy your concerns and cause you to withdraw your request for hearing.

Information concerning any aspect of these applications may be obtained by contacting the Texas Natural Resource Conservation Commission, Chief Clerks Office-MC105, P.O. Box 13087, Austin, Texas 78711. Individual members of the public who wish to inquire about the information contained in this notice, or to inquire about other agency permit applications or permitting processes, should call the TNRCC Office of Public Assistance, Toll Free, at 1-800-687-4040.

Listed are the name of the applicant and the city in which the facility is located, type of facility, location of the facility, permit number and type of application-new permit, amendment, or renewal.

CBI NA-CON INC., 8900 Fairbanks North Houston Road, Houston, Texas 77064, the wastewater treatment plant, the plant site is located in the northeast corner of the property at 8900 Fairbanks North Houston Road and approximately 3 miles north of the intersection of Fairbanks North Houston Road and U.S. Highway 290 in Harris County, Texas, renewal, 11389-01.

CITY OF DANBURY, P.O. Box 258, Danbury, Texas 77534, wastewater treatment plant, the plant site is located on Avenue L

between Seventh and Eighth Streets on the west side of Danbury in Brazoria County, Texas, renewal, 10158-001.

CITY OF EDEN, P.O. Box 915, Eden, Texas 76837, the City of Eden Wastewater Treatment Plant is located approximately 2/3 of a mile east of U.S. Highway 83, 2/3 of a mile south of U.S. Highway 87 and immediately north of Harden Branch in the City of Eden in Concho County, Texas, amendment, 10081-01.

CITY OF HILLCREST VILLAGE, P.O. Box 1172, Alvin, Texas 77512, wastewater treatment plant site is located on the west bank of Mustang Bayou, approximately 0.5 mile west of the intersection of County Road 326 and County Road 155 in Brazoria County, Texas, renewal, 10420-001.

LAGUNA MADRE WATER DISTRICT, 105 Port Road, Port Isabel, Texas 78578, the Port Isabel Wastewater Treatment Facilities, the facilities are located approximately 0.75 of a mile south and 0.25 of a mile east of the intersection of Farm-to-Market Road 1792 and State Highway 100; 0.6 of a mile south of State Highway 100; and 0.9 of a mile east of Farm-to-Market Road 1792 in Cameron County, Texas, renewal, 10350-001.

CITY OF MANVEL, P.O. Box 187, Manvel, Texas 77578, the wastewater treatment plant is located 0.8 mile northwest of the intersection of State Highway 6 and Farm-to-Market Road 1128 in Brazoria County, Texas, new, 13872-001.

TEXAS UTILITIES ELECTRIC COMPANY, Energy Plaza, 1601 Bryan Street, Dallas, Texas 75201-3411, a steam electric station, which is inactive, the plant site is located in Blocks 392 and 393 at 2707 Flynn Street in the City of Dallas, Dallas County, Texas, renewal, 01248.

WEST ROAD WATER SUPPLY CORPORATION AND MCDONALD'S CORPORATION, a wastewater treatment plant, the plant site is located at 185 West Road along the east side of Interstate Highway 45, Harris County, Texas, renewal, 02761.

WOODRIDGE LIMITED PARTNERSHIP, 3201 Dee Street, Shreveport, Louisiana 71105, the Woodridge Apartments Wastewater Treatment Facilities, the facilities are approximately 1600 feet southeast of the intersection of Farm-to-Market Road 134 and State Highway 43 in Harrison County, Texas, renewal, 13474-001.

COGEMA MINING, INC., P.O. Box 730, Mills, Wyoming 82644, the proposed amendment would revise restoration values for calcium, magnesium, sodium, potassium, bicarbonate, TDS, conductivity, alkalinity, selenium, uranium, molybdenum and radium-226. The proposed values will not change the use category of the water. Prior to mining, the water in the production area was used for livestock, the West Cole Project is located in Webb County, Texas, approximately 40 miles east of Laredo and approximately two miles north of Brunion on the west side of Farm Road 2050, an amendment, Permit No. URO2463-001 (West Cole Mine Site), 30-day notice.

DIAMOND SHAMROCK REFINING COMPANY, L.P., P.O. Box 696000, San Antonio, Texas 78269-6000, to authorize subsurface disposal of hazardous and non-hazardous wastes generated at its McKee Plant during the manufacture of gasoline, petroleum and ammonia related products, the waste disposal wells are located approximately 50 miles north of Amarillo and approximately 8 miles northeast of the City of Dumas, Texas, for underground injection control permits (Proposed Permit Nos. WDW-332 and WDW-333), 45-day notice.

E. I. DUPONT DE NEMOURS & COMPANY, INC., Victoria Plant, P.O. Box 2626, Victoria, Texas 77902, authorizes operation of an industrial solid waste management facility for the storage, processing, landfilling, and post-closure care of industrial and hazardous waste, the wastes managed at this facility are generated on-site at the Victoria plant from the manufacture of organic chemicals and are received from off-site sources, the facility is located on a 4596-acre tract of land approximately 13 miles south of the city of Victoria in Victoria County, Texas, amendment, Permit No. HW-50056-001, 45-day notice.

MONTFORT, INC., Schroeter Industrial Park, U.S. Highway 287, P.O. Box 524, Dumas, Texas 79029, to authorize subsurface disposal of non-hazardous wastes generated by the permittee's facility during hide processing and tanning operations, wastes are generated on-site and include hide processing wastewater; tannery wastewater; water softener regeneration wastewater; associated runoff, spill water, and service water; and compatible wastewaters generated during closures, the facility is located at Schroeter Industrial Park, in the City of Cactus, west of and adjacent to U.S. Highway 287, twelve miles north of the City of Dumas, Moore County, Texas, for underground injection control permits (Proposed Permit Nos. WDW-334 and WDW-335), 30-day notice.

Issued in Austin, Texas, on May 23, 1997.

TRD-9706846

Eugenia K. Brumm, Ph. D.

Chief Clerk

Texas Natural Resource Conservation Commission

Filed: May 23, 1997



Applications for Waste Disposal Permits

Attached are Notices of Applications for waste disposal permits issued during the period of May 12th thru May 16, 1997.

The Executive Director will issue these permits unless one or more persons file written protests and/or a request for a hearing within 30 days after newspaper publication of this notice.

To request a hearing, you must submit the following: (1) your name (or for a group or association, an official representative), mailing address, daytime phone number, and fax number, if any; (2) the name of the applicant and the permit number; (3) the statement "I/we request a public hearing;" (4) a brief description of how you would be adversely affected by the granting of the application in a way not common to the general public; (5) the location of your property relative to the applicant's operations; and (6) your proposed adjustments to the application/permit which would satisfy your concerns and cause you to withdraw your request for hearing.

Information concerning any aspect of these applications may be obtained by contacting the Texas Natural Resource Conservation Commission, Chief Clerks Office-MC105, P.O. Box 13087, Austin, Texas 78711. Individual members of the public who wish to inquire about the information contained in this notice, or to inquire about other agency permit applications or permitting processes, should call the TNRCC Office of Public Assistance, Toll Free, at 1-800-687-4040.

Listed are the name of the applicant and the city in which the facility is located, type of facility, location of the facility, permit number and type of application-new permit, amendment, or renewal.

HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 208, c/o Fulbright & Jaworski, 1301 McKinney, Houston, Texas 77010-3905, the Copperfield Wastewater Treatment Facilities are located at 7926 State Highway 6, approximately 3/4 mile northeast of the intersection of State Highway 6 and Farm-to-Market Road 529 (Spencer Road) in Harris County, Texas, amendment, 11947-001.

CITY OF PHARR, P.O. Box B, Pharr, Texas 78577, the wastewater treatment plant is located adjacent to South "I" Road, approximately 1.9 miles south of the intersection of South "I" Road and U.S. Highway 83 Business in Hidalgo County, Texas, amendment, 10596-001.

RESORT WATER SERVICES, INC., 6116 North Central Expressway, Suite 1300, Dallas, Texas 75206-5166, the wastewater treatment plant is approximately 0.3 mile south of the State Highway 198 and 1.5 miles west of the intersection of State Highway 198 and Farm-to-Market Road 316 in Henderson County, Texas, new, 13879-01.

STANLEY LAKE MUNICIPAL UTILITY DISTRICT, 10474 Twin Circles, Montgomery, Texas 77356-5733, the Stanley Lake MUD Wastewater Treatment Plant is located approximately 2,000 feet north of State Highway 105 and adjacent to Lake Conroe, approximately 10 miles west of the City of Conroe in Montgomery County, Texas, renewal, 11367-001.

TRANSTEXAS GAS CORPORATION, P.O. Box 1908, Laredo, Texas 78043, the wastewater treatment plant and evaporation pond are located on the northern side of State Highway 359, approximately 5.5 miles east of the City of Laredo in Webb County, Texas, new, 13856-001.

CITY OF WINTERS, 310 S Main, Winters, Texas 79567, the wastewater treatment plant is located approximately 5,600 feet east and 2,900 feet south of the intersection of State Highway 153 and U.S. Highway 83, southeast of the City of Winters in Runnels County, Texas, amendment, 10320-001.

Issued in Austin, Texas, on May 23, 1997.

TRD-9706847

Eugenia K. Brumm, Ph. D.

Chief Clerk

Texas Natural Resource Conservation Commission

Filed: May 23, 1997



Notices Of Receipt Of Application And Declaration Of Administrative Completeness For Municipal Solid Waste Management Facilities

APPLICATION BY THE CITY OF GARLAND, Amendment to Permit Number MSW1895 (Application Number MSW1895-A), to authorize a vertical and horizontal expansion to the Type I municipal solid waste facility. The site covers approximately 482 acres of land and receives approximately 1089 tons of solid waste daily. The site is approximately 400 feet northwest of the intersection of Princeton Road and Yager Road in northeast Dallas County, Texas.

APPLICATION BY SANIFILL OF TEXAS, INC., Amendment to Permit Number MSW1565-A (Application Number MSW1565-

B), to authorize a vertical and horizontal expansion to the Type IV municipal solid waste facility. The site covers approximately 118.1155 acres of land and receives approximately 1650 tons of solid waste daily. The site is at 8205 Fairbanks North Houston Road in Harris County, Texas.

If you wish to request a public hearing, you must submit your request in writing. You must state (1) your name, mailing address and daytime phone number; (2) the application number, TNRCC docket number or other recognizable reference to the application; (3) the statement I/we request an evidentiary public hearing; (4) a brief description of how you, or the persons you represent, would be adversely affected by the granting of the application; and (5) a description of the location of your property relative to the applicant's operations.

Requests for a public hearing or questions concerning procedures should be submitted in writing to the Chief Clerk's Office, Park 35 TNRCC Complex, Building F, Room 1101, Texas Natural Resource Conservation Commission, Mail Code 105, P.O. Box 13087, Austin, Texas 78711. Individual members of the public who wish to inquire about the information contained in this notice, or to inquire about other agency permit applications or permitting processes, should call the TNRCC Office of Public Assistance, Toll Free, at 1-800-687-4040.

Issued in Austin, Texas, on May 23, 1997.

TRD-9706848

Eugenia K. Brumm, Ph. D.

Chief Clerk

Texas Natural Resource Conservation Commission

Filed: May 23, 1997



Provisionally-Issued Temporary Permits to Appropriate State Water

Listed below are permits issued during the period of May 23, 1997.

Application Number TA-7813 by T.L. James & Company, Inc. for diversion of 9.0 acre-feet in an eight month period for industrial use. Water may be diverted from Little River, Brazos River Basin, at the crossing of F.M. 486, which is approximately 9.1 miles southwest of Cameron, Milam County, Texas, Brazos River Basin.

Application Number TA-7814 by T.I. Energy Services, Inc. For diversion of 1.0 acre-feet during the period June 1, 1997 through December 31, 1997 for industrial use. Water may be diverted from Cow Bayou (north and south banks), Sabine River Basin, at a point approximately 3.0 miles downstream of the Highway 87 crossing of Cow Bayou and approximately 1.1 miles south of the F.M. 1006. This location is approximately 5.0 miles south of Orange, Orange County, Texas.

The Executive Director of the TNRCC has reviewed each application for the permits listed and determined that sufficient water is available at the proposed point of diversion to satisfy the requirements of the application as well as all existing water rights. Any person or persons who own water rights or who are lawful users of water on a stream affected by the temporary permits listed above and who believe that the diversion of water under the temporary permit will impair their rights may file a complaint with the TNRCC. The complaint can be filed at any point after the application has been filed with the TNRCC

and the time the permit expires. The Executive Director shall make an immediate investigation to determine whether there is a reasonable basis for such a complaint. If a preliminary investigation determines that diversion under the temporary permit will cause injury to the complainant the commission shall notify the holder that the permit shall be canceled without notice and hearing. No further diversions may be made pending a full hearing as provided in Section 295.174. Complaints should be addressed to Water Rights Permitting Section, Texas Natural Resource Conservation Commission, P.O. Box 13087, Austin, Texas 78711, Telephone (512) 239-4433. Information concerning these applications may be obtained by contacting the Texas Natural Resource Conservation Commission, P.O. Box 13087, Austin, Texas 78711, Telephone (512) 239-3300.

Issued in Austin, Texas, on May 23, 1997.

TRD-9706850

Eugenia K. Brumm, Ph. D.

Chief Clerk

Texas Natural Resource Conservation Commission

Filed: May 23, 1997



Texas Department of Protective and Regulatory Services

Request for Proposal — Services to At-Risk Youth (STAR) Program

The Texas Department of Protective and Regulatory Services is soliciting proposals for service contracts to be awarded under the Department's Services to At-Risk Youth program.

Services to At-Risk Youth (STAR) program is designed to reduce and prevent the problems of runaway, truancy, juvenile delinquency and family conflict through the provision of timely and appropriate short term services to eligible youths and their families. Services must be equally accessible to self- and family-referred youths and youths referred by agencies. Priority must be placed on supporting and strengthening the family unit. Consequently, services provided to the youth and the family while the youth remains in his/her home are preferred.

The Department is contracting for services which are provided in the form of crisis intervention services, counseling services, skills-based training, and short-term residential care. These services must be made available to the following children and youths:

At-Risk Youth - A youth aged 7-17 years who meets one of the following criteria: I. Runaway youth; II. Truant youth; III. Youth in family conflict.

Delinquent Youth: Seven, eight, and nine year olds involved in delinquent offenses; Youth ages 10-16 who is involved in misdemeanor offenses and state jail felonies.

Eligible applicants: Eligible offerors include: private, non-profit agencies; private, for profit agencies; partnerships; individuals; and governmental entities other than juvenile probation departments. Historically underutilized businesses are encouraged to submit proposals.

Limitations: Funding of the selected proposals will be dependent upon available federal and/or state appropriations. The Department reserves the right to reject any and all offers received in response to

this RFP and to cancel this RFP if it is deemed in the best interest of the Department.

Term: The effective dates of any contract awarded under this RFP will be November 1, 1997 through August 31, 1998.

Deadline: All proposals to be considered for funding through this RFP must be received by 3:00 p.m. July 17, 1997. Modifications to the original proposal must also be received prior to 3:00 p.m. July 17, 1997.

Evaluation and Selection: A panel will rank and score the proposals. The evaluation method and criteria will be specified in the RFP packet.

Considerations are: need, program services, staffing, community collaboration, and cost.

Contact Person: Potential offerors may obtain the RFP package beginning June 2, 1997. It is preferred that requests for the RFP be submitted in writing to Cynthia Ximenes, STAR Program Specialist; Texas Department of Protective and Regulatory Services; Agency Mail Code E-541; P.O. Box 149030; Austin, Texas 78714- 9030; (512) 438-3127

Proposals are being solicited for the following counties: Anderson, Armstrong, Aransas, Atascosa, Bee, Brewster, Brooks, Brown, Burnet, Calhoun, Cherokee, Collingsworth, Childress, Comanche, Crockett, Culberson, De Witt, Donley, Eastland, Foard, Freestone, Frio, Goliad, Hall, Hansford, Hardeman, Hemphill, Haskell, Henderson, Houston, Hudspeth, Hutchinson, Jackson, Jeff Davis, Jim Wells, Kenedy, Kent, Kinney, Kleberg, Knox, Leon, Lipscomb, Lime-stone, Live Oak, McCulloch, Madison, McMullen, Menard, Mills, Ochiltrie, Oldham, Pecos, Presidio, Rains, Regan, Reeves, Refugio, Roberts, Sabine, San Jacinto, San Patricio, San Saba, Sherman, Smith, Stephens, Stonewall, Sutton, Terrell, Throckmorton, Val Verde, Van Zandt, Wheeler, Wood, Zavala..

The Department is also soliciting proposals for El Paso County and Travis County. These counties are currently being served as primary counties and the Department is soliciting proposals for a second primary contract in each of these counties. Cameron County and Denton County are currently being served as satellite counties. Due to their identification as the two satellite counties with general populations of over 300,000, they are being upgraded to primary counties. This RFP is opening these counties for competitive procurement by soliciting proposals for these counties as primary counties.

Amount of Awards: Awards may range from a maximum of \$300,000 for a primary county to a maximum of \$40,000 for a satellite county and a maximum of \$20,000 for an outlying county.

Issued in Austin, Texas, on May 27, 1997.

TRD-9706911

C. Ed Davis

Deputy Commissioner for Legal Services

Texas Department of Protective and Regulatory Services

Filed: May 27, 1997



Public Utility Commission of Texas

Inquiry into Regulatory Treatment of Fuel Contract Futures.

The Public Utility Commission of Texas requests interested parties to answer questions concerning the regulatory treatment of fuel contract futures. The commission requests that answers that total more than 10 pages include an executive summary. Answers to the questions may be filed by submitting 16 copies to the commission's Secretary, Mr. Steve Davis, 1701 North Congress Avenue, P.O. Box 13326, Austin, Texas 78711-3326, within 30 days of the date of publication. All submissions should refer to Project Number 17007. This notice is not a formal notice of proposed rulemaking, but the parties' answers to the questions will assist the commission in developing a commission policy or determining the necessity for a related rulemaking.

1. Regarding fuel futures, please provide your definition of "hedging" activities versus "speculative" activities.
2. Please fully discuss the benefits of engaging in hedging activities.
3. Please fully discuss the costs of engaging in hedging activities.
4. Will the risks associated with using fuel futures cause the utilities' required cost of common equity to escalate?
5. Please fully discuss the potential risks to the utilities' financial integrity if the utility engages in the use of fuel futures.
6. Please fully discuss the rationale supporting your answer and provide any regulatory or accounting literature that supports your position. Is it feasible to objectively differentiate between "hedging" and "speculative" activities? If it is possible to differentiate, how or by what standards would you distinguish between the two activities?
7. Please fully explain any "hedging" activities in which your company engages. Include in your answer the types of activities and commodities traded, exchanged, etc.
8. Please provide examples of standard journal entries, by each type, of any "hedging" activities in which your company engages.
9. What guidelines, policies, limits does your company follow regarding "hedging" for fuel related futures? What guidelines would you recommend?
10. What was the total dollar amount of "hedging" with fuel related activities your company engaged in for the calendar year 1996?
11. What is the estimated total dollar amount of "hedging" with fuel related activities your company anticipates for the calendar year 1997?
12. For each specific commodity that was "hedged" for the year 1996, what is the percentage of your company's annual fuel related futures activity relative to your company's annual fuel consumption?
13. Should the gains and revenues from "hedging" with fuel related futures trading be distributed to ratepayers, shareholders, or shared between the two? Please fully discuss the rationale supporting each of your answers to the following:
 - a. If these amounts should be distributed to ratepayers, please discuss the possible vehicles for distribution (i.e. fuel factor or base rates).
 - b. If shared, how should they be split?
14. Should the losses and expenses from "hedging" with fuel related futures trading be borne by ratepayers, shareholders, or shared between the two? Please fully discuss the rationale supporting each of your answers to the following:

- a. If these amounts should be borne by ratepayers, please discuss the possible vehicles for collection (i.e. fuel factor or base rates).

- b. If shared, how should they be split?

15. Should "hedging" fuel related futures transactions (purchases, sale - gains/losses, expenses, etc.) be recorded as fuel or non-fuel?

- a. If these transactions are appropriately recorded as fuel, should they be reflected/recovered through base rates or via a fuel reconciliation?

- b. Please discuss fully the rationale supporting your answers and provide any regulatory or accounting literature that supports your position.

16. What guidelines, policies, limits does your company follow regarding "speculative" uses of fuel related futures? What guidelines would you recommend?

17. What was the total dollar amount of "speculative" uses of fuel related activities your company engaged in for the calendar year 1996?

18. What is the estimated total dollar amount of "speculative" uses of fuel related activities your company anticipates for the calendar year 1997?

19. Should profits or losses from "speculative" uses of fuel related futures transactions be flowed through to ratepayers? Please fully discuss the rationale supporting each of your answers to the following questions:

- a. If yes, how, why, and to what extent?

- b. If no, what safeguards should be established to ensure that ratepayers are not impacted by the profits or losses from "speculative" fuel related futures activities?

- c. Should "speculative" fuel related futures transactions (purchases, sale - gains/losses, expenses, etc.) be recorded as fuel or non-fuel?

- d. If these transactions are appropriately recorded as fuel, should they be reflected/recovered through base rates or via a fuel reconciliation?

20. What types of fuel price "hedging" instruments should the commission permit (e.g. should the commission limit utilities to "hedging" transactions that involve highly liquid instruments traded publicly?) Please discuss fully the rationale supporting your answers and provide any regulatory or accounting literature that supports your position.

21. Should the commission prohibit any specific types of transactions (e.g. length of hedge, types of hedging products)? Please discuss fully the rationale supporting your answers and provide any regulatory or accounting literature that supports your position.

22. Should the commission consider special restrictions, provisions, or guidelines on "hedging" natural gas futures transactions for utilities that own or lease gas storage? Please discuss fully the rationale supporting your answer and provide any regulatory or accounting literature that supports your position.

23. Should the commission consider special restrictions, provisions, or guidelines on "hedging" natural gas futures transactions for utilities that own their own natural gas production? Please discuss fully the rationale supporting your answer and provide any regulatory or accounting literature that supports your position.

24. Please discuss any other issues the commission should consider regarding fuel related futures activities.

Issued in Austin, Texas, on May 22, 1997.

TRD-9706805

Rhonda Dempsey

Rules Coordinator

Public Utility Commission of Texas

Filed: May 22, 1997

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Notices of Application to Amend Certificate of Convenience and Necessity

Notice is given to the public of the filing with the Public Utility Commission of Texas of an application on May 15, 1997, to amend a certificate of convenience and necessity pursuant to the Public Utility Regulatory Act of 1995, §§1.101(a), 2.201, 2.101(e), 2.252, and 2.255. A summary of the application follows.

Docket Title and Number: Application of Public Utilities Board of the City of Brownsville and Central Power and Light Company to Amend Certificated Service Area Boundaries Within Cameron County, Docket Number 17453, before the Public Utility Commission of Texas.

The Application: In Docket Number 17453, Public Utilities Board of the City of Brownsville and Central Power and Light Company request approval to amend their certificated service area boundaries so that Public Utilities Board of the City of Brownsville can provide electric service to El Valle West subdivision within Cameron County.

Persons who wish to comment upon the action sought should contact the Public Utility Commission of Texas, at P.O. Box 13326, Austin, Texas 78711-3326, or call the commission's Office of Consumer Affairs at (512) 936-7120 within 15 days of this notice. Hearing and speech-impaired individuals with text telephone (TTY) may contact the commission at (512) 936-7136.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706750

Rhonda Dempsey

Rules Coordinator

Public Utility Commission of Texas

Filed: May 21, 1997

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Notice is given to the public of the filing with the Public Utility Commission of Texas of an application on May 9, 1997, to amend a certificate of convenience and necessity pursuant to the Public Utility Regulatory Act of 1995, §§1.101(a), 2.201, 2.101(e), 2.252, and 2.255. A summary of the application follows.

Docket Title and Number: Application of Magic Valley Electric Cooperative, Inc. to Amend Certificate of Convenience and Necessity for a Proposed Transmission Line in Hidalgo County, Docket Number 17432, before the Public Utility Commission of Texas.

The Application: In Docket Number 17432, Magic Valley Electric Cooperative, Inc. requests approval to amend its certificate of convenience and necessity to construct approximately 5.7 miles of 138-kV transmission line and the proposed Aderhold substation in Hidalgo County.

Persons who wish to comment upon the action sought should contact the Public Utility Commission of Texas, at P.O. Box 13326, Austin, Texas 78711-3326, or call the commission's Office of Consumer Affairs at (512) 936-7120 within 15 days of this notice. Hearing and speech-impaired individuals with text telephone (TTY) may contact the commission at (512) 936-7136.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706749

Rhonda Dempsey

Rules Coordinator

Public Utility Commission of Texas

Filed: May 21, 1997

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Notice of Application for Approval of Certain Depreciation Rates

Notice is given to the public of the filing with the Public Utility Commission of Texas an application on May 16, 1997, for approval of certain depreciation rates pursuant to the Public Utility Regulatory Act of 1995 (PURA), Texas Revised Civil Statutes Annotated article 1446c-0, §3.051(b), and §3.151(a) (Vernon 1997). The following is a summary of the application.

Docket Title and Number. Application of West Texas Rural Telephone Cooperative, Inc. for an Increase in Certain Depreciation Rates. Docket Number 17463.

The Application. In Docket Number 17463, West Texas Rural Telephone Cooperative, Inc. requests approval to increase certain depreciation rates to receive full capital recovery of the following equipment accounts: digital electronic switching equipment, circuit equipment, and buried cable-metallic.

Persons who wish to comment upon the action sought should contact the Public Utility Commission of Texas, at P.O. Box 13326, Austin, Texas 78711-3326, or call the commission's Office of Consumer Affairs at (512) 936-7120. Hearing and speech-impaired individuals with text telephone (TTY) may contact the commission at (512) 936-7136 on or before June 24, 1997.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706751

Rhonda Dempsey

Rules Coordinator

Public Utility Commission of Texas

Filed: May 21, 1997

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Notices of Intent to File Pursuant to Public Utility Commission Substantive Rule 23.27

Notice is given to the public of the intent to file with the Public Utility Commission of Texas an application pursuant to P.U.C. SUBSTANTIVE RULE 23.27 for a new PLEXAR-custom service for Alief Independent School District in Houston, Texas.

Tariff Title and Number. Application of Southwestern Bell Telephone Company for a New PLEXAR-Custom Service for Alief Independent School District in Houston, Texas, Pursuant to P.U.C. SUBSTANTIVE RULE 23.27. Tariff Control Number 17493.

The Application. Southwestern Bell Telephone Company is requesting approval for a new PLEXAR-custom service for Alief Independent School District in Houston, Texas. The geographic service market for this specific service is the Houston local access and transport area.

Persons who wish to comment upon the action sought should contact the Public Utility Commission of Texas, by mail at P.O. Box 13326, Austin, Texas, 78711-3326, or call the Public Utility Commission Consumer Affairs Section at (512) 936-7120. Hearing and speech-impaired individuals with text telephones (TTY) may contact the commission at (512) 936-7136.

Issued in Austin, Texas, on May 27, 1997.

TRD-9706916

Rhonda Dempsey

Rules Coordinator

Public Utility Commission of Texas

Filed: May 27, 1997



Notice is given to the public of the intent to file with the Public Utility Commission of Texas an application pursuant to P.U.C. SUBSTANTIVE RULE 23.27 for an addition to the existing PLEXAR-custom service for Southwestern Bell Corporation in San Antonio, Texas.

Tariff Title and Number. Application of Southwestern Bell Telephone Company for an Addition to the Existing PLEXAR-Custom Service for Southwestern Bell Corporation in San Antonio, Texas, Pursuant to P.U.C. SUBSTANTIVE RULE 23.27. Tariff Control Number 17494.

The Application. Southwestern Bell Telephone Company is requesting approval for an addition to the existing PLEXAR-custom service for Southwestern Bell Corporation in San Antonio, Texas. The geographic service market for this specific service is the San Antonio local access and transport area.

Persons who wish to comment upon the action sought should contact the Public Utility Commission of Texas, by mail at P.O. Box 13326, Austin, Texas, 78711-3326, or call the Public Utility Commission Consumer Affairs Section at (512) 936-7120. Hearing and speech-impaired individuals with text telephones (TTY) may contact the commission at (512) 936-7136.

Issued in Austin, Texas, on May 27, 1997.

TRD-9706917

Rhonda Dempsey

Rules Coordinator

Public Utility Commission of Texas

Filed: May 27, 1997



Public Utility Commission of Texas

Notice of Petition for Good Cause Exception to File Fuel Reconciliation Proceeding

Notice is given to the public of the filing with the Public Utility Commission of Texas on April 22, 1997, of a petition for good cause exception to file fuel reconciliation proceeding.

Docket and Title Number. Texas-New Mexico Power Company's Request for Good Cause Exception to File Fuel Reconciliation Proceeding. Docket Number 17376.

The Application. Texas-New Mexico Power Company (TNP) requests a good cause exception to the requirement of Public Utility Commission Substantive Rule 23.23(b)(3) that it file a fuel reconciliation proceeding by March 31, 1997, and an extension of the filing date to June 30, 1997.

Persons who wish to comment upon the action sought should contact the Public Utility Commission of Texas, by mail at P.O. Box 13326, Austin, Texas, 78711-3326, or call the Public Utility Commission Consumer Affairs Section at (512) 936-7120 no later than June 17, 1997. Hearing and speech-impaired individuals with text telephones (TTY) may contact the commission at (512) 936-7136. Please reference Docket Number 17376.

Issued in Austin, Texas, on May 23, 1997.

TRD-9706851

Rhonda Dempsey

Rules Coordinator

Public Utility Commission of Texas

Filed: May 23, 1997



Public Notices of Interconnection Agreement

On May 15, 1997, Southwestern Bell Telephone Company (SWB) and Max-Tel Communications, Inc. (Max-Tel) collectively referred to as Applicants, filed a joint application for approval of an interconnection agreement under the Federal Telecommunications Act of 1996 (FTA) (Public Law Number 104-104, 110 Statute 56 (1996), (to be codified at 47 United States Code, §§151 et. seq.) and the Public Utility Regulatory Act of 1995 (PURA95) (Texas Revised Civil Statutes Annotated, Article 1446c-0, Vernon 1997). The joint application has been designated Docket Number 17457. The joint application and the underlying interconnection agreement are available for public inspection at the commission's offices in Austin, Texas.

The FTA authorizes the commission to review and approve any interconnection agreement adopted by negotiation of the parties. Pursuant to FTA §252(e)(2) the commission may reject any agreement if it finds that the agreement discriminates against a telecommunications carrier not a party to the agreement, or that implementation of the agreement, or any portion thereof, is not consistent with the public interest, convenience, and necessity. Additionally, under FTA §252(e)(3), the commission may establish or enforce other requirements of state law in its review of the agreement, including requiring compliance with intrastate telecommunications service quality standards or requirements. The commission must act to approve the agreement within 90 days after it is submitted by the parties.

The commission finds that additional public comment should be allowed before the commission issues a final decision approving or rejecting the interconnection agreement. Any interested person may file written comments on the joint application by filing 18 copies of the comments with the commission's filing clerk. Additionally, a copy of the comments should be served on each of the Applicants. The comments should specifically refer to Docket Number 17457. As a part of the comments, an interested person may request that a

public hearing be conducted. The comments, including any request for public hearing, shall be filed by June 19, 1997, and shall include:

- 1) a detailed statement of the person's interests in the agreement, including a description of how approval of the agreement may adversely affect those interests;
- 2) specific allegations that the agreement, or some portion thereof:
 - a) discriminates against a telecommunications carrier that is not a party to the agreement; or
 - b) is not consistent with the public interest, convenience, and necessity; or
 - c) is not consistent with other requirements of state law; and
- 3) the specific facts upon which the allegations are based.

After reviewing any comments, the commission will determine whether to conduct further proceedings concerning the joint application. The commission shall have the authority given to a presiding officer pursuant to P.U.C. Procedural Rule §22.202. The commission may identify issues raised by the joint application and comments and establish a schedule for addressing those issues, including the submission of evidence by the Applicants, if necessary, and briefing and oral argument. The commission may conduct a public hearing. Interested persons who file comments are not entitled to participate as intervenors in the public hearing.

Persons with questions about this docket or who wish to comment on the application should contact the Public Utility Commission of Texas, 1701 North Congress Avenue, P. O. Box 13326, Austin, Texas 78711-3326. You may call the Public Utility Commission Office of Consumer Affairs at (512) 936-7120. Hearing and speech-impaired individuals with text telephones (TTY) may contact the commission at (512) 936-7136. All correspondence should refer to Docket Number 17457.

Issued in Austin, Texas, on May 23, 1997.

TRD-9706840
Rhonda Dempsey
Rules Coordinator
Public Utility Commission of Texas
Filed: May 23, 1997

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On May 15, 1997, GTE Southwest Incorporated and AT&T Wireless Services, Inc. (AWS) collectively referred to as Applicants filed a joint application for approval of an interconnection agreement under the Federal Telecommunications Act of 1996 (FTA) (Public Law Number 104-104, 110 Statutes 56 (1996), (to be codified at 47 U.S.C. §§151 et. seq.) and the Public Utility Regulatory Act of 1995 (PURA95) (Texas Revised Civil Statute Annotated article 1446c-0 Vernon 1997). The joint application has been designated Docket Number 17458. The joint application and the underlying interconnection agreement are available for public inspection at the commission's offices in Austin, Texas.

The FTA authorizes the commission to review and approve any interconnection agreement adopted by negotiation of the parties. Pursuant to FTA §252(e)(2) the commission may reject any agreement if it finds that the agreement discriminates against a telecommunications carrier not a party to the agreement, or that implementation of the agreement, or any portion thereof, is not consistent with the

public interest, convenience, and necessity. Additionally, under FTA §252(e)(3), the commission may establish or enforce other requirements of state law in its review of the agreement, including requiring compliance with intrastate telecommunications service quality standards or requirements. The commission must act to approve the agreement within 90 days after it is submitted by the parties.

The commission finds that additional public comment should be allowed before the commission issues a final decision approving or rejecting the interconnection agreement. Any interested person may file written comments on the joint application by filing 18 copies of the comments with the commission's filing clerk. Additionally, a copy of the comments should be served on each of the Applicants. The comments should specifically refer to Docket Number 17458. As a part of the comments, an interested person may request that a public hearing be conducted. The comments, including any request for public hearing, shall be filed by June 19, 1997, and shall include:

- 1) a detailed statement of the person's interests in the agreement, including a description of how approval of the agreement may adversely affect those interests;
- 2) specific allegations that the agreement, or some portion thereof:
 - a) discriminates against a telecommunications carrier that is not a party to the agreement; or
 - b) is not consistent with the public interest, convenience, and necessity; or
 - c) is not consistent with other requirements of state law; and
- 3) the specific facts upon which the allegations are based.

After reviewing any comments, the commission will determine whether to conduct further proceedings concerning the joint application. The commission shall have the authority given to a presiding officer pursuant to P.U.C. Procedural Rule §22.202. The commission may identify issues raised by the joint application and comments and establish a schedule for addressing those issues, including the submission of evidence by the Applicants, if necessary, and briefing and oral argument. The commission may conduct a public hearing. Interested persons who file comments are not entitled to participate as intervenors in the public hearing.

Persons with questions about this docket or who wish to comment on the application should contact the Public Utility Commission of Texas, 1701 North Congress Avenue, P. O. Box 13326, Austin, Texas 78711-3326. You may call the Public Utility Commission Office of Consumer Affairs at (512) 936-7120. Hearing and speech-impaired individuals with text telephones (TTY) may contact the commission at (512) 936-7136. All correspondence should refer to Docket Number 17458.

Issued in Austin, Texas, on May 23, 1997.

TRD-9706839
Rhonda Dempsey
Rules Coordinator
Public Utility Commission of Texas
Filed: May 23, 1997

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On May 16, 1997, GTE Southwest Incorporated and Houston Cellular Telephone Company (Houston) and Galveston Cellular Telephone Company (Galveston) collectively referred to as Applicants filed

a joint application for approval of an interconnection agreement under the Federal Telecommunications Act of 1996 (FTA) (Public Law Number 104-104, 110 Statutes 56 (1996), (to be codified at 47 U.S.C. §§151 et. seq.) and the Public Utility Regulatory Act of 1995 (PURA95) (Texas Revised Civil Statute Annotated article 1446c-0 Vernon 1997). The joint application has been designated Docket Number 17464. The joint application and the underlying interconnection agreement are available for public inspection at the commission's offices in Austin, Texas.

The FTA authorizes the commission to review and approve any interconnection agreement adopted by negotiation of the parties. Pursuant to FTA §252(e)(2) the commission may reject any agreement if it finds that the agreement discriminates against a telecommunications carrier not a party to the agreement, or that implementation of the agreement, or any portion thereof, is not consistent with the public interest, convenience, and necessity. Additionally, under FTA §252(e)(3), the commission may establish or enforce other requirements of state law in its review of the agreement, including requiring compliance with intrastate telecommunications service quality standards or requirements. The commission must act to approve the agreement within 90 days after it is submitted by the parties.

The commission finds that additional public comment should be allowed before the commission issues a final decision approving or rejecting the interconnection agreement. Any interested person may file written comments on the joint application by filing 18 copies of the comments with the commission's filing clerk. Additionally, a copy of the comments should be served on each of the Applicants. The comments should specifically refer to Docket Number 17464. As a part of the comments, an interested person may request that a public hearing be conducted. The comments, including any request for public hearing, shall be filed by June 19, 1997, and shall include:

- 1) a detailed statement of the person's interests in the agreement, including a description of how approval of the agreement may adversely affect those interests;
- 2) specific allegations that the agreement, or some portion thereof:
 - a) discriminates against a telecommunications carrier that is not a party to the agreement; or
 - b) is not consistent with the public interest, convenience, and necessity; or
 - c) is not consistent with other requirements of state law; and
- 3) the specific facts upon which the allegations are based.

After reviewing any comments, the commission will determine whether to conduct further proceedings concerning the joint application. The commission shall have the authority given to a presiding officer pursuant to P.U.C. Procedural Rule §22.202. The commission may identify issues raised by the joint application and comments and establish a schedule for addressing those issues, including the submission of evidence by the Applicants, if necessary, and briefing and oral argument. The commission may conduct a public hearing. Interested persons who file comments are not entitled to participate as intervenors in the public hearing

Persons with questions about this docket or who wish to comment on the application should contact the Public Utility Commission of Texas, 1701 North Congress Avenue, P. O. Box 13326, Austin, Texas 78711-3326. You may call the Public Utility Commission Office of Consumer Affairs at (512) 936-7120. Hearing and speech-impaired

individuals with text telephones (TTY) may contact the commission at (512) 936-7136. All correspondence should refer to Docket Number 17464.

Issued in Austin, Texas, on May 23, 1997.

TRD-9706838

Rhonda Dempsey

Rules Coordinator

Public Utility Commission of Texas

Filed: May 23, 1997



Texas Department of Transportation

Requests for Proposals

Notice of Invitation: The Tyler District of the Texas Department of Transportation (TxDOT) intends to engage an engineer, pursuant to Government Code, Chapter 2254, Subchapter A, and 43 TAC §§9.30-9.40, to provide the following services. The engineer selected must perform a minimum of 30% of the actual contract work to qualify for contract award.

Contract Number 10-745P5001: To conduct comprehensive speed surveys along various highways within the Tyler District.

Deadline: A letter of interest notifying TxDOT of the provider's intent to submit a proposal will be accepted by fax at (903) 510-9254, or by mail/hand delivery to TxDOT, Tyler District Office, Attention: George Grantham, P.E., 2709 West Front Street, Tyler, Texas 75702. Letters of interest will be received until 5:00 p.m. on Friday, June 13, 1997. The letter of interest must include the engineer's firm name, address, telephone number, fax number, name of engineer's contact person and the TxDOT contract number. Upon receipt of the letter of interest, a Request for Proposal packet will be issued. (Note: Written requests, either by mail/hand delivery or fax, will be required to receive a Request for proposal packet. The letter of interest is required in order to receive a request for proposal packet and in order for a prime provider to submit a proposal.)

Proposal Submittal Deadline: Proposals for Contract Number 10-745P5001 will be accepted until 5:00 p.m. on Monday, June 30, 1997, at the previously mentioned TxDOT, Tyler District address.

Agency Contact: Requests for additional information regarding this notice of invitation should be addressed to George Grantham, P.E., at (903) 510-9288 or fax (903) 510-9254.

Issued in Austin, Texas, on May 28, 1997.

TRD-9706956

Robert E. Shaddock

General Counsel

Texas Department of Transportation

Filed: May 28, 1997



Notice of Invitation: The Lufkin District Office of the Texas Department of Transportation (TxDOT) intends to enter into two contracts with professional engineers, pursuant to Government Code, Chapter 2254, Subchapter A, and 43 TAC §§9.30-9.40, to provide the following services. TxDOT will negotiate and enter a separate contract with each of the two prime providers selected. To qualify

for contract award a selected engineer must perform a minimum of 30% of the actual contract work.

Contract Number(s) 11-745P5008 and 11-745P5009: To perform transportation engineering such as traffic studies, hydraulic studies, design surveying, plans, specifications and estimates development for various highway rehabilitation projects in the Lufkin District for a two year period.

Deadline: A letter of interest notifying TxDOT of the provider's intent to submit a proposal will be accepted by fax at (409) 633-4374, or by hand/mail delivery to TxDOT, Lufkin District Office, Attention: Robert Neel, P.E., 1805 North Timberland Drive, Lufkin, Texas 75901. Letters of interest will be received until 5:00 p.m. on Friday, June 13, 1997. The letter of interest must include the engineer's firm name, address, telephone number, fax number, name of engineer's contact person and refer to contract number 11-745P5008 and/or 11-745P5009. Upon receipt of the letter of interest, a Request for Proposal packet will be issued. (Note: The letters of interest, either by mail/hand delivery or fax, will be required to receive the Request for Proposal packet. The letter of interest is required in order to receive a request for proposal packet and in order for a prime provider to submit a proposal.)

Proposal Submittal Deadline: Proposals for contract number(s) 11-745P5008 and 11-745P5009 will be accepted until 5:00 p.m. on Friday, June 27, 1997, at the previously mentioned TxDOT, Lufkin District Office address.

Agency Contact: Requests for additional information regarding this notice of invitation should be addressed to Tina L. Walker, P.E., at (409) 633-4329 or fax (409) 633-4374.

Issued in Austin, Texas, on May 28, 1997.

TRD-9706957

Robert E. Shaddock

General Counsel

Texas Department of Transportation

Filed: May 28, 1997



The Texas Department of Transportation (TxDOT), Aviation Division, intends to engage an aviation engineering consultant pursuant to Chapter 2254, Subchapter A, of the Government Code. The Aviation Division will solicit and receive qualifications for professional services as described in the project scope for the following project:

Airport Sponsor: City of Denton; Project Scope: Clearing/grubbing trees, regrading and replacing security fence in safety area and associated appurtenances at the Denton Municipal Airport; Estimated total project cost: \$111,111.00. Project Manager: Bijan Jamalabad; Mailing address: TxDOT, 125 East 11th Street, Austin, Texas 78701-2483; Hand Delivery address: 150 E. Riverside, North Tower, Second Floor, Austin, Texas.

Interested firms which do not already have a copy of the Form 439, entitled "Aviation Consultant Services Questionnaire", (August 1995 version) may request one from the TxDOT Aviation Division, 125 East 11th Street, Austin, Texas 78701-2483, 1-800-68-PILOT. The form is also available on high density 3 1/2" diskette in Microsoft Excel 5.0, and may be ordered from the above address with remittance of \$2.50 to cover costs. The form may not be altered in any way, and all printing must be in black. **QUALIFICATIONS WILL NOT BE ACCEPTED IN ANY OTHER FORMAT.**

Two completed unfolded copies of Form 439 (August 1995 version) must be received by 4:00 p.m. (CDT), June 20, 1997, in the previously mentioned Aviation Division Office address. The three pages of instructions should not be forwarded with the completed questionnaires. Electronic facsimiles will not be accepted.

The airport sponsor's duly appointed committee will review all professional qualifications and select three to five engineering firms for proposals. Those firms selected will be required to provide more detailed, project-specific proposals which address the project team, technical approach, Disadvantage Business Enterprise (DBE) participation, design schedule, and other matters prior to the final selection process. The final consultant selection by the sponsor's committee will generally be made following the completion of review of proposals and/or interviews. Procedures for award will be in accordance with FAA Advisory Circular AC 150/5100-14C.

The airport sponsor reserves the right to reject any or all statements of qualifications and to conduct new consulting engineer selection procedures.

If there are any procedural questions, please contact Karon Wiedemann, Director, Grant Management, Aviation Division, Texas Department of Transportation at (512) 416-4520 or 1-800-68-PILOT.

Issued in Austin, Texas, on May 28, 1997.

TRD-9706958

Robert E. Shaddock

General Counsel

Texas Department of Transportation

Filed: May 28, 1997



The Texas A&M University System

Consultant Proposal Request

This request for consulting services is filed under the provisions of the Texas Government Code, Chapter 2254. Texas A&M International University (TAMIU) plans to award a contract for the purpose of developing and implementing a comprehensive job evaluation and compensation plan. The selected firm will be expected to perform the following services: implement a job evaluation system for all positions, develop and implement a pay plan(s) and evaluate all positions.

Firms wishing to respond to this request should be able to demonstrate the experience and qualifications necessary to produce excellent outcomes in the above areas. Of interest are relevant credentials of project personnel and experience in designing and implementing job evaluation and compensation plans.

The instructions which detail information regarding the project are available upon request.

The deadline for receipt of the proposals in response to this request will be 4:00 p.m. on July 2, 1997. Proposals received after the specified date and time will not be considered.

TAMIU reserves the right to accept or reject any or all proposals submitted. TAMIU is under no legal requirement to execute a resulting contract on the basis of this advertisement. TAMIU intends to use responses as a basis for further negotiations of specific project details. Final selection will be based on cost, demonstrated

competence, superior qualifications and evidence of conformance with the consultant proposal request criteria.

This consultant proposal request does not commit TAMIU to pay any costs incurred prior to execution of a contract. Issuance of this material in no way obligates TAMIU to award a contract or to pay any costs incurred in the preparation of a response. TAMIU specifically reserves the right to vary all provisions set forth at any time prior to execution of a contract where it is deemed to be in the best interest of TAMIU.

To obtain copies of the consultant proposal request instructions, please submit a written request to Elizabeth N. Martinez, Director of Human Resources, Texas A&M International University, 5201 University Boulevard, Laredo, Texas 78041-1900, FAX (210) 326-2359. For questions or further information regarding this notice, contact Elizabeth N. Martinez at (210) 326-2365 or at enmartinez@tamiu.edu.

Issued in College Station, Texas, on May 20, 1997.

TRD-9706768

Vickie Burt

Executive Secretary to the Board

The Texas A&M University System

Filed: May 22, 1997

Texas Workforce Commission

Notice of Bidders' Conference

The Texas Workforce Commission will host a Bidders' Conference for the School-to-Work Substate Grant application. The conference will be held on June 16, 1997 from 10:30 a.m. to 1:30 p.m. in Room 3.102 at the Joe C. Thompson Conference Center at 26th and Red River Streets at the University of Texas.

The State of Texas has been awarded a School-to-Work Opportunities Grant of approximately \$61.3 million over a five-year period beginning March 1, 1997. The purpose of the grant is to support development and expansion of a statewide school-to-work system for all students in Texas. The Texas Workforce Commission will administer the federal grant. In Year One, \$10.3 million is available of which \$7.5 million will flow to local areas through substate grants.

Only representatives of Local Workforce Development Boards and School-to-Work Partnerships are eligible to participate. Participants from each workforce area must designate a contact person for their team. A team is a maximum of four persons.

To pre-register the team for the conference, the contact person should fax the name, title mailing address, phone number and fax number of each team member to the State School-to-Work Office at 512-463-6689 by June 9, 1997.

Copies of the substate grant application will be mailed to team members in advance of the conference. Contact Deron Bissett at 512-936-0370 or Amy Praskac at 512-463-2212 at the School-to-Work Office if you have questions or need the application in an alternate format.

After registering for the conference, participants who need special accommodations should contact Joanne Brown at 512-463-6389 at least one week before the conference.

Issued in Austin, Texas, on May 27, 1997.

TRD-9706918

Esther Hajdar

Director of Legal Services

Texas Workforce Commission

Filed: May 27, 1997

Request for Proposals

A. Introduction

The Texas Workforce Commission is providing the following information regarding a Request for Proposals for components of the El Paso Re-employment Pilot Project funded under a JTPA PY97 Title III Governor's Discretionary Grant. The Texas Workforce Commission is seeking proposals for the implementation of integrated workplace literacy/vocational skills training, stand-alone workplace literacy and vocational assessment for dislocated workers in El Paso.

B. Eligible Proposers

Potential bidders are public and private entities, agencies and organizations, post-secondary education institutions to include community and technical colleges and universities, proprietary schools, community-based organizations and employers. Organizations may jointly submit a single bid with multiple components.

C. Available Funding

The Texas Workforce Commission has allocated \$1,000,000 for the training and assessment components of the El Paso Re-employment Pilot Project.

D. Funding Restrictions

Expenditures will be reimbursed on the basis of performance benchmarks. Up to 15% of the training costs may be used for administrative costs. Expenditures are governed by JTPA financial management regulations. A pre-award audit will be conducted.

E. Selection, Notification and Negotiation Process

All proposals will be graded on a competitive basis. A Bidders' Conference will be held in El Paso on June 12, 1997. TWC anticipates completing the selection process by August 11, 1997. Proposers will be notified by August 15, 1997. Contract negotiation will be conducted the week of August 18, 1997. Program services are scheduled to begin September 15, 1997. TWC reserves the right to vary any provisions of this RFD prior to the execution of the contract.

F. Length of Contracts

The contract period is for twelve months-beginning September 1, 1997 through August 31, 1998.

G. Agency Contract and Due Date

To request a proposal packet, please contact Rebecca Horton at (512) 936-0400 or Fax (512) 936-0331. You may also request a packet by writing to the Dislocated Workers Unit, Workforce Development Commission, 101 East 15th Street, 104T, Austin, Texas 78778-0001. Proposals are due on August 1, 1997 at the same address.

Issued in Austin, Texas, on May 28, 1997.

TRD-9706960

Esther Hajdar

Director of Legal Services

Texas Workforce Commission
Filed: May 28, 1997

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ADOPTED RULES

An agency may take final action on a section 30 days after a proposal has been published in the ***Texas Register***. The section becomes effective 20 days after the agency files the correct document with the ***Texas Register***, unless a later date is specified or unless a federal statute or regulation requires implementation of the action on shorter notice.

If an agency adopts the section without any changes to the proposed text, only the preamble of the notice and statement of legal authority will be published. If an agency adopts the section with changes to the proposed text, the proposal will be republished with the changes.

TITLE 4. AGRICULTURE

Part I. Texas Department of Agriculture

Chapter 11. Herbicide Regulations

4 TAC §11.1, §11.2

The Texas Department of Agriculture adopts amendments to §11.1 and §11.2, concerning herbicide regulations without changes to the proposed text as published in the April 4, 1997, issue of the *Texas Register* (22 TexReg 3275).

The amendments are adopted in order to be consistent with county commissioner court's action.

No comments were received regarding adoption of the amendments.

The amendments are adopted under the Texas Agriculture Code, §12.016, which provides the Texas Department of Agriculture with the authority to adopt rules for carrying out provisions of the Texas Agriculture Code; and §75.017 which provides the department with the authority to consider and adopt rules on a request for revision of a rule, an exemption from a requirement of Chapter 75, or prohibition of the spraying of a regulated herbicide in an area.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 19, 1997.

TRD-9706624

Dolores Alvarado Hibbs

Deputy General Counsel

Texas Department of Agriculture

Effective date: June 6, 1997

Proposal publication date: April 4, 1997

For further information, please call: (512) 463-7583



TITLE 16. ECONOMIC REGULATION

Part II. Public Utility Commission of Texas

Chapter 23. Substantive Rules

Rates

16 TAC §23.21

The Public Utility Commission of Texas (PUC) adopts an amendment to §23.21, relating to Cost of Service without changes to the proposed text published in the January 3, 1997, *Texas Register* (22 TexReg 15). The amendment is necessary to ensure that the distribution of any excess funds available after the termination of a postretirement benefits other than pensions (OPEB) trust is subject to commission approval.

A public hearing on the amendment was held at commission offices on January 7, 1997, at 10:00 a.m. Representatives from Central and South West Corporations (CSW), El Paso Electric Company (EPEC), and Houston Lighting and Power Company (HL&P) attended the hearing. The parties' statements largely reflect their written comments and are summarized therein.

The commission received written comments on the proposed amendment from the Office of Public Utility Counsel (OPC), HL&P, CSW, EPEC, and GTE Southwest (GTE). OPC commented that the amendment should provide that any excess funds be returned to the ratepayers. The disposition of excess funds involves complex federal income tax issues. The commission finds that it is premature to determine the disposition of any excess funds until such time as the commission may have the benefit of the Internal Revenue Service's analysis of the issue. To that end, the commission has already directed one utility to seek a private letter ruling on the issue.

GTE commented that the amendment is neither appropriate nor necessary. The commission disagrees. The rule is necessary to fulfill the original intent of the rule and protect the interest of ratepayers. Prior to the current OPEB rule, utilities recovered their OPEB expenses on a pay-as-you-go basis. The current rule was adopted to permit recovery of these costs on an accrual basis. However, the commission required that these funds be placed in an irrevocable trust to ensure that these funds would be available for the purpose they were intended. If a trust were terminated and excess funds remained, the potential exists for there to be a windfall to utilities. The proposed amendment ensures that the original purpose of the rule is satisfied while enabling the commission to eliminate a potential windfall to utilities at ratepayers expense.

CSW, HL&P, and EPEC generally commented that they do not oppose the proposed amendment.

CSW and HL&P also commented that the amendment should be modified to impose a thirty- day review period which may be extended to a maximum of 180 days if the application is contested. Because the commission intends to process applications under the amendment as expeditiously as possible, an artificial time constraint is not necessary. Moreover, it is impossible to anticipate the magnitude and complexity of the commission's docket at the point in time when applications under the amendment may be filed. Therefore, the better public policy is for the commission to maintain its flexibility to manage its docket in the future and avoid artificial constraints which will unnecessarily limit the discretion of future commissions.

EPEC commented that the phrases "trust related liabilities" and "excess funds" be expressly defined. The commission declines to adopt EPEC proposed definitions. The amendment is intended to apply broadly and comprehensively to all utilities. Therefore, the more general phrases are more consistent with the purpose of the amendment.

This amendment is adopted under the Public Utility Regulatory Act of 1995 (PURA95) Texas Revised Civil Statutes Annotated, Article 1446c-0 (Vernon 1997) §1.101 which provides the commission with the authority to make and enforce rules reasonably required in the exercise of its powers and jurisdiction, including rules of practice and procedure.

Cross Index to Statutes: Public Utility Regulatory Act of 1995

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 22, 1997.

TRD-9706803

Rhonda Dempsey

Rules Coordinator

Public Utility Commission of Texas

Effective date: June 11, 1997

Proposal publication date: January 3, 1997

For further information, please call: (512) 936-7283



TITLE 19. EDUCATION

Part II. Texas Education Agency

Chapter 114. Texas Essential Knowledge and Skills for Languages Other Than English

The Texas Education Agency (TEA) adopts new §§114.1, 114.2, 114.11, 114.12, and 114.21-114.26, concerning languages other than English (LOTE). The new sections are adopted with changes to the proposed text as published in the February 28, 1997, issue of the *Texas Register* (22 TexReg 2025). The new sections establish the essential knowledge and skills for Grades PreK-12 for both sequential and non-sequential LOTE courses. The new sections are necessary to ensure that students throughout the state have access to the enrichment curricula. The provisions of these sections shall supersede §§75.26, 75.42, and 75.62(a)-(g) and (k)-(o) of this title (relating to Other Languages) beginning September 1, 1998.

The Texas Education Code organizes the required curriculum into two types: the foundation curriculum and the enrichment curriculum. As specified in legislation, the essential knowledge and skills of the enrichment curriculum serve as guidelines to school districts in providing instruction. In doing so, some districts may incur costs for professional development and equipment. These potential costs cannot be estimated.

The following changes have been made since the sections were proposed.

Numerous editorial changes were made throughout the sections and some topics were reorganized for clarification and simplification. Changes were also made to strengthen verbs and to eliminate references to particular instructional approaches.

Since filing of the proposed sections, legal counsel has advised that since the sections serve as guidelines for instruction, language containing or implying mandates on school districts should be stricken and replaced with more permissive language where necessary. The term "shall" appeared in: (1) statements regarding the date of implementation of the provisions for each subchapter; (2) the amount of course credit to be awarded to a student for successful completion of a course; (3) references in the new sections to languages offered at elementary and middle schools; and (4) statements regarding the date of implementation of each chapter.

In §114.12 (relating to Languages Other Than English, Middle School), the term "exploratory" in subsection (b) was replaced with the term "nonsequential" to clarify that students may be awarded credit for all nonsequential courses, both exploratory courses and cultural and linguistic topic courses. This change was made in response to a public comment received.

The phrase "including grammar" has been added to subsections (b)(1) and (b)(2) of §114.22 (relating to Levels I and II - Novice Progress Checkpoint (One Credit Per Level)), §114.23 (relating to Levels III and IV - Intermediate Progress Checkpoint (One Credit Per Unit)), and §114.24 (relating to Levels V, VI and VII - Advanced Progress Checkpoint (One Credit Per Unit)).

The following comments have been received regarding adoption of the new sections.

Subchapter B. Middle School.

114.12. Languages Other Than English, Middle School.

Issue: credit for nonsequential courses.

Comment. An individual commented that §114.12(b) omits mention of the awarding of one-half to one unit of credit for successful completion of any non-sequential course rather than just for an exploratory course.

Agency Response. The TEA agrees with the comment and has amended the section to include this language.

Subchapter C. High School.

114.25. Exploratory Languages (One-Half to One Credit).

Issue: exploratory languages.

Comment. An individual commented that the Texas essential knowledge and skills (TEKS) for Languages Other Than English (LOTE) nonsequential course titled "Exploratory Languages"

contains a student expectation (§114.25(c)(1)(A)) that is too vague.

Agency Response. The primary focus of this nonsequential course is to introduce the student to aspects of the language learning experience. Some of these aspects are types of classroom activities, exercises, assignments, and projects that are commonly found in language teaching materials. For example, these may include changing language forms according to specific instructions, completing a puzzle with certain vocabulary items, assuming a role in a short dialogue, etc.

General Comments.

Issue: scope, performance targets, and program goals.

Comment. An individual commented that the TEKS for LOTE reflect that: (1) all students should be proficient in a LOTE; (2) students are designed to embrace a K-12 curriculum; (3) there are three checkpoints provided to let students and teachers know the progress being made; (4) the standards are rigorous; the basic understandings focus on communication with the context and support provided by cultures, connections, comparisons, and communities; and (5) the document is parsimonious rather than overwhelming, presenting expectations, and allowing for maximum local flexibility for content.

Comment. Two individuals commented that the TEKS for LOTE are too vague, hard to understand, not teachable, and not measurable. Some specific references in the sections were cited.

Agency Response. The TEKS for LOTE had undergone three revisions subsequent to preparing Draft 2 in July 1, 1996. The revisions were based on comments and suggestions from diverse publics including educators from all over the state. Some of the concerns expressed by these individuals were addressed in subsequent versions of the document.

Issue: status of communication skills.

Comment. An individual commented that the proposed TEKS for LOTE reduce the emphasis on communication skills and language development activities to 20% with the remaining 80% devoted to culture.

Agency Response. The introduction of the TEKS for LOTE includes a statement that the communication skills are the primary focus of the TEKS for cultures, connections, comparisons, and communities. Therefore, all the TEKS address the communication skills of listening, speaking, reading, and writing.

Issue: role of grammar.

Comment. An individual commented that the TEKS LOTE do not reflect drill, mechanics, and repetition. Familiarity with the TEKS other than communication skills does not replace actually learning the language.

Agency Response. There are increasing demands for accuracy as a student moves through the progress checkpoints. Accuracy includes the ability to use and understand those components of language such as grammar, vocabulary, and mechanics.

Comment. An individual commented that the TEKS for LOTE lack performance descriptions for standards regarding verb tenses and conjugations.

Agency Response. The primary focus of the TEKS is the development of communication skills. Within the skills of listening, speaking, reading, and writing, the importance of accuracy of expression through the knowledge and use of the components of language, including grammar, structure, and precision of language, are included as an essential and integral part of that development.

Issue: rigor.

Comment. An individual commented that the TEKS for LOTE do not reflect the advanced level of proficiency that they promise and would only allow students to socialize and perform basic functions.

Agency Response. The TEKS for LOTE are based on the progress checkpoints of novice, intermediate, and advanced proficiencies. The rigor of the advanced proficiency level is equivalent to that expected of a beginning Spanish or French teacher in Texas.

Issue: role of culture.

Comment. An individual commented that the TEKS for LOTE overemphasize the role of culture in language learning in an effort to promote multiculturalism at the expense of a student's own culture.

Agency Response. The role of cultures in the TEKS for LOTE is to support the communication skills. The TEKS for Comparisons promote the understanding of a student's own culture.

Comment. An individual commented that the TEKS for LOTE excessively emphasize the role of culture and de-emphasize the importance of grammar in language learning.

Agency Response. The primary focus of the TEKS is the development of communication skills. Within the skills of listening, speaking, reading, and writing, the importance of accuracy of expression through the knowledge and use of the components of language, including grammar, structure, and precision of language, are included as an essential and integral part of that development. Culture supports the skills development by providing context and content on which the linguistic skills continue to be built.

Comment. An individual commented that the tools needed to equip Texas' students for tomorrow's world include the understanding of another culture and language to allow them to move comfortably among cultures. Also, an introduction to Latin in the elementary curriculum is one example of a successful strategy to introduce students to language study and to strengthen their knowledge of their own first language.

Issue: the role of the essential elements and program goals.

Comment. An individual commented that the TEKS for LOTE represent a strong and comprehensive effort based on the best of the current essential elements and move to stronger standards for students in the future. Communication remains the focus of language learning, with grammar and structure a constant component, and the four other areas of cultures, connec-

tions, comparisons, and communities provide the context and content for communication.

Issue: role of national standards.

Comment. An individual commented that the TEKS for LOTE mirror the national standards document for foreign languages in the use of communication, culture, connections, comparisons, and communities.

Agency Response. While the broad framework of the document reflects Standards for Foreign Language Learning produced by the language profession, the TEKS go far beyond the standards by introducing progress checkpoints and tasks associated with those targeted proficiency levels. Other standards have been added as reflected in §§114.22-114.24.

Issue: Spanish textbooks.

Comment. An individual commented that some of the textbooks adopted by the State for Spanish under Proclamation 1994 for adoption this year have specific formal alignment with the TEKS, rather than with the essential elements.

Agency Response. Proclamation 1994 required instructional materials to address the essential elements for other languages as enumerated in the Proclamation. There was no mandate or expectation from the state that textbook publishers would address, include, or align their materials with the TEKS.

Issue: fluency in a second language.

Comment. An individual commented that fluency and knowledge of a second language and culture are necessary preparation for a student's education in the 21st century, especially considering global competition in business and its resulting career demands for students.

Issue: cultural and linguistic course.

Comment. An individual commented that the TEKS for LOTE nonsequential course titled "Cultural and Linguistic Topics" reads like a Social Studies class except for the last knowledge and skills referring to linguistic aspects of selected regions, countries, or languages.

Agency Response. The general requirements for this course in the TEKS for LOTE Cultural and Linguistic Topics allows for the option of students choosing to receive credit for a nonsequential course in languages other than English or credit for a social studies elective course.

Subchapter A. Elementary

19 TAC §114.1, §114.2

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§114.1. Implementation of Texas Essential Knowledge and Skills for Languages Other Than English, Elementary.

The provisions of this subchapter shall supersede §75.26 of this title (relating to Other Languages) beginning September 1, 1998.

§114.2. Languages Other Than English, Elementary.

School districts are strongly encouraged to offer languages other than English in the elementary grades. For districts that offer languages in

elementary, the essential knowledge and skills are those designated as Levels I and II - novice progress checkpoint, exploratory languages, and cultural and linguistic topics in Subchapter C of this chapter (relating to Texas Essential Knowledge and Skills for Languages Other Than English).

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 15, 1997.

TRD-9706399

Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

Effective date: September 1, 1998

Proposal publication date: February 28, 1997

For further information, please call: (512) 463-9701



Subchapter B. Middle School

19 TAC §114.11, §114.12

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§114.11. Implementation of Texas Essential Knowledge and Skills for Languages Other Than English, Middle School.

The provisions of this subchapter shall supersede §75.42 of this title (relating to Other Languages) beginning September 1, 1998.

§114.12. Languages Other Than English, Middle School.

(a) School districts are strongly encouraged to offer languages other than English in middle school. For districts that offer languages in middle school, the essential knowledge and skills are those designated as Levels I and II - novice progress checkpoint and Levels III and IV - intermediate progress checkpoint, exploratory languages, and cultural and linguistic topics in Subchapter C of this chapter (relating to Texas Essential Knowledge and Skills for Languages Other Than English).

(b) Students are awarded one unit of high school credit per level for successful completion of the level and one-half to one unit of high school credit for successful completion of a nonsequential course.

(c) Districts may offer a level of a language in a variety of scheduling arrangements that may extend or reduce the traditional schedule when careful consideration is given to the instructional time available on a campus and the language ability, access to programs, and motivation of students.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 15, 1997.

TRD-9706401

Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

Effective date: September 1, 1998
Proposal publication date: February 28, 1997
For further information, please call: (512) 463-9701



Subchapter C. High School

19 TAC §§114.21–114.26

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§114.21. Implementation of Texas Essential Knowledge and Skills for Languages Other Than English, High School.

The provisions of this subchapter shall supersede §75.62(a)-(g) and (k)-(o) of this title (relating to Other Languages) beginning September 1, 1998.

§114.22. Levels I and II - Novice Progress Checkpoint (One Credit Per Level).

(a) General requirements.

(1) Levels I and II - Novice progress checkpoint can be offered in elementary, middle, or high school. At the high school level, students are awarded one unit of credit per level for successful completion of the level.

(2) Using age-appropriate activities, students develop the ability to perform the tasks of the novice language learner. The novice language learner, when dealing with familiar topics, should:

(A) understand short utterances when listening and respond orally with learned material;

(B) produce learned words, phrases, and sentences when speaking and writing;

(C) detect main ideas in familiar material when listening and reading;

(D) make lists, copy accurately, and write from dictation;

(E) recognize the importance in communication to know about the culture; and

(F) recognize the importance of acquiring accuracy of expression by knowing the components of language, including grammar.

(3) Students of classical languages use the skills of listening, speaking, and writing to reinforce the skill of reading.

(b) Introduction.

(1) Acquiring another language incorporates communication skills such as listening, speaking, reading, writing, viewing, and showing. Students develop these communication skills by using knowledge of the language, including grammar, and culture, communication and learning strategies, technology, and content from other subject areas to socialize, to acquire and provide information, to express feelings and opinions, and to get others to adopt a course of action. While knowledge of other cultures, connections to other disciplines, comparisons between languages and cultures, and community interaction all contribute to and enhance the communicative language

learning experience, communication skills are the primary focus of language acquisition.

(2) Students of languages other than English gain the knowledge to understand cultural practices (what people do) and products (what people create) and to increase their understanding of other cultures as well as to interact with members of those cultures. Through the learning of languages other than English, students obtain the tools and develop the context needed to connect with other subject areas and to use the language to acquire information and reinforce other areas of study. Students of languages other than English develop an understanding of the nature of language, including grammar, and culture and use this knowledge to compare languages and cultures and to expand insight into their own language and culture. Students enhance their personal and public lives and meet the career demands of the 21st century by using languages other than English to participate in communities in Texas, in other states, and around the world.

(c) Knowledge and skills.

(1) Communication. The student communicates in a language other than English using the skills of listening, speaking, reading, and writing. The student is expected to:

(A) engage in oral and written exchanges of learned material to socialize and to provide and obtain information;

(B) demonstrate understanding of simple, clearly spoken, and written language such as simple stories, high-frequency commands, and brief instructions when dealing with familiar topics; and

(C) present information using familiar words, phrases, and sentences to listeners and readers.

(2) Cultures. The student gains knowledge and understanding of other cultures. The student is expected to:

(A) demonstrate an understanding of the practices (what people do) and how they are related to the perspectives (how people perceive things) of the cultures studied; and

(B) demonstrate an understanding of the products (what people create) and how they are related to the perspectives (how people perceive things) of the cultures studied.

(3) Connections. The student uses the language to make connections with other subject areas and to acquire information. The student is expected to:

(A) use resources (that may include technology) in the language and cultures being studied to gain access to information; and

(B) use the language to obtain, reinforce, or expand knowledge of other subject areas.

(4) Comparisons. The student develops insight into the nature of language and culture by comparing the student's own language and culture to another. The student is expected to:

(A) demonstrate an understanding of the nature of language through comparisons of the student's own language and the language studied;

(B) demonstrate an understanding of the concept of culture through comparisons of the student's own culture and the cultures studied; and

(C) demonstrate an understanding of the influence of one language and culture on another.

(5) Communities. The student participates in communities at home and around the world by using languages other than English. The student is expected to:

(A) use the language both within and beyond the school setting through activities such as participating in cultural events and using technology to communicate; and

(B) show evidence of becoming a lifelong learner by using the language for personal enrichment and career development.

§114.23. Levels III and IV - Intermediate Progress Checkpoint (One Credit Per Level).

(a) General requirements.

(1) Levels III and IV - Intermediate progress checkpoint can be offered in middle or high school. At the high school level, students are awarded one unit of credit per level for successful completion of the level.

(2) Using age-appropriate activities, students expand their ability to perform novice tasks and develop their ability to perform the tasks of the intermediate language learner. The intermediate language learner, when dealing with everyday topics, should:

(A) participate in simple face-to-face communication;

(B) create statements and questions to communicate independently when speaking and writing;

(C) understand main ideas and some details of material on familiar topics when listening and reading;

(D) understand simple statements and questions when listening and reading;

(E) meet limited practical and social writing needs;

(F) use knowledge of the culture in the development of communication skills;

(G) use knowledge of the components of language, including grammar, to increase accuracy of expression; and

(H) cope successfully in straightforward social and survival situations.

(3) In classical languages, the skills of listening, speaking, and writing are used in Level III to reinforce the skill of reading. Students of classical languages should reach intermediate proficiency in reading by the end of Level III.

(b) Introduction.

(1) Acquiring another language incorporates communication skills such as listening, speaking, reading, writing, viewing, and showing. Students develop these communication skills by using knowledge of the language, including grammar, and culture, communication and learning strategies, technology, and content from other subject areas to socialize, to acquire and provide information, to express feelings and opinions, and to get others to adopt a course of action. While knowledge of other cultures, connections to other disciplines, comparisons between languages and cultures, and community interaction all contribute to and enhance the communicative language learning experience, communication skills are the primary focus of language acquisition.

(2) Students of languages other than English gain the knowledge to understand cultural practices (what people do) and products (what people create) and to increase their understanding of other cultures as well as to interact with members of those cultures. Through the learning of languages other than English, students obtain the tools and develop the context needed to connect with other subject areas and to use the language to acquire information and reinforce other areas of study. Students of languages other than English develop an understanding of the nature of language, including grammar, and culture and use this knowledge to compare languages and cultures and to expand insight into their own language and culture. Students enhance their personal and public lives and meet the career demands of the 21st century by using languages other than English to participate in communities in Texas, in other states, and around the world.

(c) Knowledge and skills.

(1) Communication. The student communicates in a language other than English using the skills of listening, speaking, reading, and writing. The student is expected to:

(A) engage in oral and written exchanges to socialize, to provide and obtain information, to express preferences and feelings, and to satisfy basic needs;

(B) interpret and demonstrate understanding of simple, straightforward, spoken and written language such as instructions, directions, announcements, reports, conversations, brief descriptions, and narrations; and

(C) present information and convey short messages on everyday topics to listeners and readers.

(2) Cultures. The student gains knowledge and understanding of other cultures. The student is expected to:

(A) use the language at the intermediate proficiency level to demonstrate an understanding of the practices (what people

(B) use the language at the intermediate proficiency level to demonstrate an understanding of the concept of culture through comparisons of the student's own culture and the cultures studied; and

(C) use the language at the intermediate proficiency level to demonstrate an understanding of the influence of one language and culture on another.

(5) Communities. The student participates in communities at home and around the world by using languages other than English. The student is expected to:

(A) use the language at the intermediate proficiency level both within and beyond the school setting through activities such as participating in cultural events and using technology to communicate; and

(B) show evidence of becoming a lifelong learner by using the language at the intermediate proficiency level for personal enrichment and career development.

§114.24. Levels V, VI and VII - Advanced Progress Checkpoint (One Credit Per Level).

(a) General requirements.

(1) Levels V, VI, and VII - Advanced progress checkpoint can be offered in high school. At the high school level, students are awarded one unit of credit per level for successful completion of the level.

(2) Using age-appropriate activities, students master novice tasks, expand their ability to perform intermediate tasks, and develop their ability to perform the tasks of the advanced language learner. The advanced language learner of modern languages, when dealing with events of the concrete world, should:

(A) participate fully in casual conversations in culturally appropriate ways;

(B) explain, narrate, and describe in past, present, and future time when speaking and writing;

(C) understand main ideas and most details of material on a variety of topics when listening and reading;

(D) write coherent paragraphs;

(E) cope successfully in problematic social and survival situations;

(F) achieve an acceptable level of accuracy of expression by using knowledge of language components, including grammar; and

(G) apply knowledge of culture when communicating.

(3) The advanced language learner of classical languages reads and comprehends authentic texts of prose and poetry of selected authors. The skills of listening, speaking, and writing are used to reinforce the skill of reading.

(4) Students of classical languages may reach advanced proficiency in reading during Level IV. (A student who completes a College Board Advanced Placement course or the International Baccalaureate in Latin should reach advanced proficiency in reading during Level IV.)

(b) Introduction.

(1) Acquiring another language incorporates communication skills such as listening, speaking, reading, writing, viewing, and showing. Students develop these communication skills by using knowledge of the language, including grammar, and culture, communication and learning strategies, technology, and content from other subject areas to socialize, to acquire and provide information, to express feelings and opinions, and to get others to adopt a course of action. While knowledge of other cultures, connections to other disciplines, comparisons between languages and cultures, and community interaction all contribute to and enhance the communicative language learning experience, communication skills are the primary focus of language acquisition.

(2) Students of languages other than English gain the knowledge to understand cultural practices (what people do) and products (what people create) and to increase their understanding of other cultures as well as to interact with members of those cultures. Through the learning of languages other than English, students obtain the tools and develop the context needed to connect with other subject areas and to use the language to acquire information and reinforce other areas of study. Students of languages other than English develop an understanding of the nature of language, including grammar, and culture and use this knowledge to compare languages and cultures and to expand insight into their own language and culture. Students enhance their personal and public lives and meet the career demands of the 21st century by using languages other than English to participate in communities in Texas, in other states, and around the world.

(c) Knowledge and skills.

(1) Communication. The student communicates in a language other than English using the skills of listening, speaking, reading, and writing. The student is expected to:

(A) engage in oral and written exchanges, including providing and obtaining information, expressing feelings and preferences, and exchanging ideas and opinions;

(B) interpret and demonstrate understanding of spoken and written language, including literature, on a variety of topics; and

(C) present information, concepts, and ideas on a variety of topics to listeners and readers.

(2) Cultures. The student gains knowledge and understanding of other cultures. The student is expected to:

(A) use the language at the advanced proficiency level to demonstrate an understanding of the practices (what people do) and how they are related to the perspectives (how people perceive things) of the cultures studied; and

(B) use the language at the advanced proficiency level to demonstrate an understanding of the products (what people create) and how they are related to the perspectives (how people perceive things) of the cultures studied.

(3) Connections. The student uses the language to make connections with other subject areas and to acquire information. The student is expected to:

(A) use resources (that may include technology) in the language and cultures being studied at the advanced proficiency level to gain access to information; and

(B) use the language at the advanced proficiency level to obtain, reinforce, or expand knowledge of other subject areas.

(4) Comparisons. The student develops insight into the nature of language and culture by comparing the student's own language and culture to another. The student is expected to:

(A) use the language at the advanced proficiency level to demonstrate an understanding of the nature of language through comparisons of the student's own language and the language studied;

(B) use the language at the advanced proficiency level to demonstrate an understanding of the concept of culture through comparisons of the student's own culture and the cultures studied; and

(C) use the language at the advanced proficiency level to demonstrate an understanding of the influence of one language and culture on another.

(5) Communities. The student participates in communities at home and around the world by using languages other than English. The student is expected to:

(A) use the language at the advanced proficiency level both within and beyond the school setting through activities such as participating in cultural events and using technology to communicate; and

(B) show evidence of becoming a lifelong learner by using the language at the advanced proficiency level for personal enrichment and career development.

§114.25. Exploratory Languages (One-Half to One Credit).

(a) General requirements.

(1) Exploratory languages is a nonsequential course that can be offered in elementary, middle, or high school. At the high school level, students are awarded one-half to one unit of credit for successful completion of a course.

(2) Using age-appropriate activities, students study selected aspects of one or more languages and cultures and/or develop basic language learning and communicative skills.

(b) Introduction. Exploratory courses in languages other than English introduce the student to the study of other languages. Students use components of language, make observations about languages and cultures, develop language study skills, and/or acquire simple communicative skills by completing one or more of the knowledge and skills for exploratory languages.

(c) Knowledge and skills.

(1) The student uses components of language. The student is expected to:

(A) participate in different types of language learning activities;

(B) use the language skills of listening, speaking, reading, and/or writing;

(C) demonstrate an awareness of some aspects of culture in using the language; and

(D) demonstrate an awareness of the subsystems of other languages (such as grammar, vocabulary, and phonology).

(2) The student makes observations about languages and cultures. The student is expected to:

(A) compare and contrast features of other languages to English;

(B) recognize the role of nonlinguistic elements (such as gestures) in communication;

(C) demonstrate an understanding of the fact that human behavior is influenced by culture; and

(D) compare some aspects of other cultures to the student's own culture.

(3) The student develops language study skills. The student is expected to:

(A) practice different language learning strategies;

(B) demonstrate an understanding of the fact that making and correcting errors is an important part of learning a language; and

(C) demonstrate an awareness of language patterns.

§114.26. Cultural and Linguistic Topics (One-Half to One Credit).

(a) General requirements.

(1) Cultural and linguistic topics is a nonsequential course that can be offered in elementary, middle, or high school. At the high school level, students are awarded one-half to one unit of credit for successful completion of a course. Upon completion of the course, students may choose to receive credit for a nonsequential course in languages other than English or credit for a social studies elective course.

(2) Using age-appropriate activities, students study cultural, linguistic, geographical, or historical aspects of selected regions or countries.

(b) Introduction. Courses in cultural and linguistic topics introduce students to the study of other cultures. Students gain the knowledge to understand the historical development, geographical aspects, cultural aspects, and/or linguistic aspects of selected regions or countries by completing one or more of the knowledge and skills for cultural and linguistic topics.

(c) Knowledge and skills.

(1) The student gains knowledge of the cultural aspects of selected regions or countries. The student is expected to:

(A) identify social, cultural, and economic changes that have affected customs and conventions in a region or country;

(B) explain variations of cultural patterns within a region or country;

(C) demonstrate an understanding of the role of traditions in influencing a culture's practices (what people do) and products (what people create); and

(D) recognize the art, music, literature, drama, or other culturally related activity of a region or country.

(2) The student gains a knowledge of certain linguistic aspects of selected regions, countries, or languages. The student is expected to:

(A) reproduce, read, write, or demonstrate an understanding of common expressions and vocabulary used in the region, country, or language studied;

(B) describe general aspects of a language based upon the linguistic experiences provided, such as word etymologies and derivatives; and

(C) recognize the linguistic contributions of native speakers and writers from various regions.

(3) The student gains knowledge of the geographical aspects of and their related influences on selected regions or countries. The student is expected to:

(A) demonstrate an understanding of the influence of geography on the historical development of a region or country; and

(B) provide examples of the interrelationships between the physical and cultural environments.

(4) The student gains knowledge of the historical aspects of selected regions or countries. The student is expected to:

(A) recognize examples of the interactions of a region or country with the rest of the world;

(B) trace historical events from their inception to the present; and

(C) identify significant personalities in the development of a region or country.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Associate Commissioner, Policy Planning and Research

Texas Education Agency

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TITLE 19. EDUCATION

Part II. Texas Education Agency

Chapter 117. Texas Essential Knowledge and Skills for Fine Art

The Texas Education Agency (TEA) adopts new §§117.1-117.19, 117.31-117.40, and 117.51-117.67, concerning fine arts. Sections 117.1, 117.9, 117.12, 117.15, 117.18, 117.31, 117.51-117.55, 117.62, 117.63, 117.66, and 117.67 are adopted with changes to the proposed text as published in the February 28, 1997, issue of the *Texas Register* (22 TexReg 2030). Sections 117.2-117.8, 117.10, 117.11, 117.13, 117.14, 117.16, 117.17, 117.19, 117.32-117.40, 117.56-117.61, 117.64, and 117.65 are adopted without changes and will not be republished.

The new sections establish the essential knowledge and skills for art, dance, music, and theatre education. The sections will help students to be better prepared for postsecondary study and work. The new sections are necessary to ensure that students throughout the state have access to the enrichment curricula. The sections shall supersede §§75.31(a)-(g), 75.47, and 75.67 of this title (relating to Fine Arts) beginning September 1, 1998.

The Texas Education Code organizes the required curriculum into two types: the foundation curriculum and the enrichment curriculum. As specified in legislation, the essential knowledge and skills of the enrichment curriculum serve as guidelines to school districts in providing instruction. In doing so, some districts may incur costs for professional development and equipment. These potential costs cannot be estimated.

The following changes have been made since the sections were proposed.

Numerous editorial changes were made throughout the sections and some topics were reorganized for clarification and simplification. Changes were also made to strengthen verbs and to eliminate references to particular instructional approaches.

Since filing of the proposed sections, legal counsel has advised that since the sections serve as guidelines for instruction, language containing or implying mandates on school districts should be stricken and replaced with more permissive language where necessary. The term "shall" appeared in statements regarding the date of implementation of the provisions for each subchapter.

In subsection (b)(2) of §§117.9, 117.12, 117.15, and 117.18, for Music, Grades 2-5, the knowledge and skills statement regarding singing has been integrated with the knowledge and skills statement regarding performance, to be consistent with the integrated statements in Kindergarten, Grade 1, and Grades 6-12.

In §117.53 (relating to Art, Level II), language in subsection (c)(3) relating to historical/cultural heritage was revised for consistency throughout the chapter.

To be consistent with other enrichment and foundation Texas Essential Knowledge and Skills (TEKS) sections, language has been added to subsection (a) of §§117.54, 117.55, 117.62, and 117.63, to include the College Board Advanced Placement (AP) program and the International Baccalaureate (IB) program. In §§117.66 and 117.67, language has been added to include the IB program.

The following comments have been received regarding adoption of the new sections.

Comment. An individual stated that TEKS for Fine Arts and the TEKS for other languages need to be taught regularly and during early school years for students to develop knowledge and skills they can use in school and throughout their lives.

Agency Response. The agency agrees with this comment. TEKS for other languages and Fine Arts have been developed for students in Kindergarten through Grade 12.

Comment. Several individuals commented that the TEKS: (1) are content-or grade-level inappropriate, vague, redundant, and lengthy; (2) have too much emphasis on multicultural objectives; (3) have objectives that are too subjective, however, seem to progress through grade levels; and (4) content lacks specificity.

Agency Response. TEKS for Fine Arts have been revised eliminating redundancy and length and include more rigor and specificity at each grade level, Kindergarten through Grade 12.

An individual recommended the theatre TEKS be rewritten in age clusters to eliminate redundancy in organization of the TEKS.

Agency Response. A preponderance of public testimony supports individual grades rather than clusters of grades.

Comment. An individual stated that the TEKS exceeded expectations of what students should know and do at the high school level. The individual identified strengths of the document as

opportunities to develop good historical/cultural appreciation in music, art, and dance; solid skills, self expression, and interpersonal relationships in theatre and to demonstrate creative expression and movement in dance.

Agency Response. The TEA agrees with this comment.

Comment. An individual commented that the TEKS provide sufficient general guidance as well as specific instructions that are essential for districts to offer the highest quality of education for Texas school children. The individual expressed enthusiastic support for the adoption of the TEKS for Fine Arts.

Agency Response. The TEA agrees with this comment.

Comment. An individual commented that the TEKS will give the school districts the means to write a comprehensive, meaningful, and sequential curriculum document that has the potential to positively affect every child taught. The individual anticipated the document would begin revision of the outdated curriculum and urged the agency to adopt the TEKS for Fine Arts.

Agency Response. The agency agrees with this comment.

Comment. An individual representing a school district felt that having kept up to date on the formation and rewriting of the TEKS, felt very secure that the TEKS for the Arts are excellent. Additionally, the school district planned to use the TEKS to create a new curriculum management system as soon as become adopted. The school district requested that the agency support the TEKS' efforts.

Comment. Several individuals commented that they had examined the TEKS for Fine Arts and offered their wholehearted support for implementation. The content is carefully thought out and would provide an excellent framework for the fine arts instruction in their district. They hope the TEKS are adopted and continue to support the fine arts as an essential part of a student's education.

Agency Response. The agency agrees with this comments.

Comment. An individual representing a school district endorsed the adoption of the TEKS for Fine Arts. The individual felt that as a teacher and supervisor for over 40 years, the content is very comprehensive and can be used in his/her district to write a sequential curriculum framework for instruction.

Agency Response. The agency agrees with this comment.

Comment. An administrator representing a school district stated that although he/she had some reservations with early drafts of the TEKS for Fine Arts, he/she felt the final version provided a framework from which staff can refine current comprehensive fine arts programs. The administrator encouraged the adoption of this document at second reading for the April SBOE meeting and move ahead with our curriculum guide rewrites this summer.

Agency Response. The agency agrees with this comment.

Comment. An individual representing a school district stated that the work he/she has done on numerous curriculum documents has convinced him/her that this type of curriculum will best serve the needs of our students.

Agency Response. The agency agrees with this comment.

Comment. An individual representing a school district stated his support for the proposed TEKS for Fine Arts. The individual believes the content is rigorous and comprehensive which our school district can use to write meaningful and sequential curriculum for fine arts instruction.

Agency Response. The agency agrees with this comment.

Comment. An individual commented that the TEKS for Fine Arts should be rejected based on them not being measurable standards and being social compliance rather than being skill-oriented and representing an age- inappropriate curriculum.

Agency Response. The Fine Arts TEKS represent a developmental process that includes the work, reviews, and comments of various individuals and groups including the public, parents, business and industry, professional educators, and others. The TEKS for Fine Arts build skills sequentially.

Comment. An individual representing the Coalition for Music Education commented that as a fine arts administrator charged with structuring a curriculum framework from the essential knowledge and skills, the document would meet the needs of our teachers and students and help districts deliver instruction that is equitable and rigorous statewide.

Agency Response. The agency agrees with this comment.

Comment: An individual representing the Texas Parent-Teacher Association provided support for the enrichment TEKS. The individual is pleased to see the broad range of programs that includes the Fine Arts and other curriculum areas.

Agency Response. The agency agrees with this comment.

Comment. An individual representing Southwestern Bell Telephone Company stated support for the proposed TEKS expressing cited relevancy. The individual particularly liked the connection of the TEKS to the work place and to life. The individual urged the adoption of the enrichment TEKS as a blueprint for local schools to increase student achievement.

Agency Response. The agency agrees with this comment.

Comment. An individual representing the Texas Music Educators Association commented that the TEKS for Fine Arts can be effectively used in school districts throughout the state, allowing local decision-making about curriculum and methodology. The individual also stated that the final TEKS document represents responses of the writing team to reviews of various individuals, groups, and field input. The individual urged adoption of the present document without deleting fine arts content.

Subchapter A. Elementary

19 TAC §§117.1–117.19

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§117.1. Implementation of Texas Essential Knowledge and Skills for Fine Arts, Elementary.

The provisions of this subchapter shall supersede §75.31(a)-(f) of this title (relating to Fine Arts) beginning September 1, 1998.

§117.9. *Music, Grade 2.*

(a) Introduction.

(1) Four basic strands—perception, creative expression/performance, historical and cultural heritage, and critical evaluation—provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. In music, students develop their intellect and refine their emotions, understanding the cultural and creative nature of musical artistry and making connections among music, the other arts, technology, and other aspects of social life. Through creative performance, students apply the expressive technical skills of music and critical-thinking skills to evaluate multiple forms of problem solving.

(2) By reflecting on musical periods and styles, students understand music's role in history and are able to participate successfully in a diverse society. Students analyze and evaluate music, developing criteria for making critical judgments and informed choices.

(b) Knowledge and skills.

(1) Perception. The student describes and analyzes musical sound and demonstrates musical artistry. The student is expected to:

(A) identify instruments visually and aurally;

(B) use music terminology to explain sounds and performances; and

(C) identify music forms such as AB and ABA.

(2) Creative expression/performance. The student performs a varied repertoire of music. The student is expected to:

(A) sing or play a classroom instrument independently or in groups; and

(B) sing songs from diverse cultures and styles or play such songs on a musical instrument.

(3) Creative expression/performance. The student reads and writes music notation. The student is expected to:

(A) read and write simple music notation, using a system (letters, numbers, syllables); and

(B) read and write music that incorporates basic rhythmic patterns in simple meters.

(4) Creative expression/performance. The student creates and arranges music within specified guidelines. The student is expected to:

(A) create rhythmic phrases; and

(B) create melodic phrases.

(5) Historical/cultural heritage. The student relates music to history, to society, and to culture. The student is expected to:

(A) identify music from various periods of history and culture;

(B) sing songs and play musical games from diverse cultures; and

(C) identify relationships between music and other subjects.

(6) Response/evaluation. The student responds to and evaluates music and musical performance. The student is expected to:

(A) distinguish between beat/rhythm, higher/lower, louder/softer, faster/slower, and same/different in musical performances; and

(B) show appropriate audience behavior during live performances.

§117.12. *Music, Grade 3.*

(a) Introduction.

(1) Four basic strands—perception, creative expression/performance, historical and cultural heritage, and critical evaluation—provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. In music, students develop their intellect and refine their emotions, understanding the cultural and creative nature of musical artistry and making connections among music, the other arts, technology, and other aspects of social life. Through creative performance, students apply the expressive technical skills of music and critical-thinking skills to evaluate multiple forms of problem solving.

(2) By reflecting on musical periods and styles, students understand music's role in history and are able to participate successfully in a diverse society. Students analyze and evaluate music, developing criteria for making critical judgments and informed choices.

(b) Knowledge and skills.

(1) Perception. The student describes and analyzes musical sound and demonstrates musical artistry. The student is expected to:

(A) categorize a variety of musical sounds, including children's and adults' voices; woodwind, brass, string, percussion, keyboard, and electronic instruments; and instruments from various cultures;

(B) use music terminology in explaining sound, music, music notation, musical instruments and voices, and musical performances; and

(C) identify music forms presented aurally such as AB, ABA, and rondo.

(2) Creative expression/performance. The student performs a varied repertoire of music. The student is expected to:

(A) sing or play a classroom instrument independently or in groups; and

(B) sing songs from diverse cultures and styles or play such songs on a musical instrument.

(3) Creative expression/performance. The student reads and writes music notation. The student is expected to:

(A) read music notation, using a system (letters, numbers, syllables);

(B) write music notation, using a system (letters, numbers, syllables);

(C) read and write music that incorporates basic rhythmic patterns in simple meters; and

(D) identify music symbols and terms referring to dynamics and tempo.

(4) Creative expression/performance. The student creates and arranges music within specified guidelines. The student is expected to:

- (A) create rhythmic phrases; and
- (B) create melodic phrases.

(5) Historical/cultural heritage. The student relates music to history, to society, and to culture. The student is expected to:

- (A) identify aurally-presented excerpts of music representing diverse genres, styles, periods, and cultures;
- (B) perform songs and musical games from diverse cultures; and
- (C) describe relationships between music and other subjects.

(6) Response/evaluation. The student responds to and evaluates music and musical performance. The student is expected to:

- (A) define basic criteria for evaluating musical performances; and
- (B) exhibit audience etiquette during live performances.

§117.15. Music, Grade 4.

(a) Introduction.

(1) Four basic strands—perception, creative expression/performance, historical and cultural heritage, and critical evaluation—provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. In music, students develop their intellect and refine their emotions, understanding the cultural and creative nature of musical artistry and making connections among music, the other arts, technology, and other aspects of social life. Through creative performance, students apply the expressive technical skills of music and critical-thinking skills to evaluate multiple forms of problem solving.

(2) By reflecting on musical periods and styles, students understand music's role in history and are able to participate successfully in a diverse society. Students analyze and evaluate music, developing criteria for making critical judgments and informed choices.

(b) Knowledge and skills.

(1) Perception. The student describes and analyzes musical sound and demonstrates musical artistry. The student is expected to:

- (A) categorize a variety of musical sounds, including children's and adults' voices; woodwind, brass, string, percussion, keyboard, and electronic instruments; and instruments of various cultures;
- (B) use standard terminology in explaining music, music notation, musical instruments and voices, and musical performances; and
- (C) identify music forms presented aurally such as AB, ABA, and rondo.

(2) Creative expression/performance. The student performs a varied repertoire of music. The student is expected to:

- (A) sing or play a classroom instrument independently or in groups; and
- (B) sing songs from diverse cultures and styles or play such songs on a musical instrument.

(3) Creative expression/performance. The student reads and writes music notation. The student is expected to:

- (A) read and write music notation, using a system (letters, numbers, syllables);
- (B) incorporate basic rhythmic patterns in simple meters in musical compositions; and
- (C) identify music symbols and terms referring to dynamics and tempo, interpreting them appropriately when performing.

(4) Creative expression/performance. The student creates and arranges music within specified guidelines. The student is expected to:

- (A) create rhythmic and melodic phrases; and
- (B) create simple accompaniments.

(5) Historical/cultural heritage. The student relates music to history, to society, and to culture. The student is expected to:

- (A) identify aurally-presented excerpts of music representing diverse genres, styles, periods, and cultures;
- (B) perform music and movement from diverse cultures;
- (C) perform music representative of American and Texas heritage; and
- (D) identify connections between music and the other fine arts.

(6) Response/evaluation. The student responds to and evaluates music and musical performance. The student is expected to:

- (A) apply basic criteria in evaluating musical performances and compositions;
- (B) justify, using music terminology, personal preferences for specific music works and styles; and
- (C) practice concert etiquette as an actively involved listener during live performances.

§117.18. Music, Grade 5.

(a) Introduction.

(1) Four basic strands—perception, creative expression/performance, historical and cultural heritage, and critical evaluation—provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. In music, students develop their intellect and refine their emotions, understanding the cultural and creative nature of musical artistry and making connections among music, the other arts, technology, and other aspects of social life. Through creative performance, students apply the expressive technical skills of music and critical-thinking skills to evaluate multiple forms of problem solving.

(2) By reflecting on musical periods and styles, students understand music's role in history and are able to participate successfully in a diverse society. Students analyze and evaluate music, developing criteria for making critical judgments and informed choices.

(b) Knowledge and skills.

(1) Perception. The student describes and analyzes musical sound and demonstrates musical artistry. The student is expected to:

(A) distinguish among a variety of musical timbres;

(B) use standard terminology in explaining music, music notation, musical instruments and voices, and musical performances; and

(C) identify a variety of music forms such as AB, ABA, rondo, and theme and variations.

(2) Creative expression/performance. The student sings or plays an instrument, individually and in groups, performing a varied repertoire of music. The student is expected to:

(A) perform independently, with accurate intonation and rhythm, demonstrating fundamental skills and basic performance techniques;

(B) perform expressively, from memory and notation, a varied repertoire of music representing styles from diverse cultures; and

(C) demonstrate appropriate small- and large- ensemble performance techniques during formal and informal concerts.

(3) Creative expression/performance. The student reads and writes music notation. The student is expected to:

(A) read standard notation;

(B) use standard symbols to notate meter, rhythm, and pitch in simple patterns (manuscript or computer-generated);

(C) read and write music that incorporates rhythmic patterns in various meters; and

(D) identify music symbols and terms referring to dynamics, tempo, and articulation.

(4) Creative expression/performance. The student creates and arranges music within specified guidelines. The student is expected to:

(A) create rhythmic and melodic phrases; and

(B) create/arrange simple accompaniments.

(5) Historical/cultural heritage. The student relates music to history, to society, and to culture. The student is expected to:

(A) identify aurally-presented excerpts of music representing diverse genres, styles, periods, and cultures;

(B) describe various music vocations and avocations;

(C) perform music and movement from diverse cultures;

(D) perform music representative of American and Texas heritage; and

(E) identify concepts taught in the other fine arts and their relationships to music concepts.

(6) Response/evaluation. The student responds to and evaluates music and musical performance. The student is expected to:

(A) apply criteria in evaluating musical performances and compositions;

(B) evaluate, using music terminology, personal preferences for specific music works and styles; and

(C) exhibit concert etiquette as an actively involved listener during varied live performances.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Associate Commissioner, Policy Planning and Research

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Subchapter B. Middle School

19 TAC §§117.31–117.40

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§117.31. Implementation of Texas Essential Knowledge and Skills for Fine Arts, Middle School.

The provisions of this subchapter shall supersede §75.31(g) and §75.47 of this title (relating to Fine Arts) beginning September 1, 1998.

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Subchapter C. High School

19 TAC §§117.51–117.67

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education

to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§117.51. Implementation of Texas Essential Knowledge and Skills for Fine Arts, High School.

The provisions of this subchapter shall supersede §75.67 of this title (relating to Fine Arts) beginning September 1, 1998.

§117.52. Art, Level I.

(a) General requirements. Students may fulfill fine arts and elective requirements for graduation by successfully completing the following art course: Art I (one credit).

(b) Introduction.

(1) Four basic strands—perception, creative expression/performance, historical and cultural heritage, and critical evaluation—provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. Students rely on their perceptions of the environment, developed through increasing visual awareness and sensitivity to surroundings, memory, imagination, and life experiences, as a source for creating artworks. They express their thoughts and ideas creatively, while challenging their imagination, fostering reflective thinking, and developing disciplined effort and problem-solving skills.

(2) By analyzing artistic styles and historical periods students develop respect for the traditions and contributions of diverse cultures. Students respond to and analyze artworks, thus contributing to the development of lifelong skills of making informed judgments and evaluations.

(c) Knowledge and skills.

(1) Perception. The student develops and organizes ideas from the environment. The student is expected to:

(A) illustrate ideas for artworks from direct observation, experiences, and imagination; and

(B) compare and contrast the use of art elements (color, texture, form, line, space, value) and art principles (emphasis, pattern, rhythm, balance, proportion, unity) in personal artworks and those of others, using vocabulary accurately.

(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill. The student is expected to:

(A) create visual solutions by elaborating on direct observation, experiences, and imagination;

(B) create designs for practical applications; and

(C) demonstrate effective use of art media and tools in design, drawing, painting, printmaking, and sculpture.

(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement. The student is expected to:

(A) compare and contrast historical and contemporary styles, identifying general themes and trends;

(B) describe general characteristics in artworks from a variety of cultures; and

(C) compare and contrast career and avocational opportunities in art.

(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others. The student is expected to:

(A) interpret, evaluate, and justify artistic decisions in personal artworks; and

(B) select and analyze original artworks, portfolios, and exhibitions by peers and others to form precise conclusions about formal qualities, historical and cultural contexts, intents, and meanings.

§117.53. Art, Level II.

(a) General requirements. Students may fulfill fine arts and elective requirements for graduation by successfully completing one or more of the following art courses: Drawing II, Painting II, Printmaking II, Fibers II, Ceramics II, Sculpture II, Jewelry II, Photography II, Electronic Media II (one credit per course). The prerequisite for each Level II art course is one credit of Art I.

(b) Introduction.

(1) Four basic strands—perception, creative expression/performance, historical and cultural heritage, and critical evaluation—provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. Students rely on their perceptions of the environment, developed through increasing visual awareness and sensitivity to surroundings, memory, imagination, and life experiences, as a source for creating artworks. They express their thoughts and ideas creatively, while challenging their imagination, fostering reflective thinking, and developing disciplined effort and problem-solving skills.

(2) By analyzing artistic styles and historical periods students develop respect for the traditions and contributions of diverse cultures. Students respond to and analyze artworks, thus contributing to the development of lifelong skills of making informed judgments and evaluations.

(c) Knowledge and skills.

(1) Perception. The student develops and organizes ideas from the environment. The student is expected to:

(A) interpret visual parallels between the structures of natural and human-made environments; and

(B) compare suitability of art materials and processes to express specific ideas relating to visual themes, using precise art vocabulary.

(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill. The student is expected to:

(A) formulate multiple solutions to expand personal themes that demonstrate intent;

(B) apply design skills in creating practical applications, clarifying presentations, and defining choices made by consumers; and

(C) select from a variety of art media and tools to communicate specific ideas in drawing, painting, printmaking, sculpture, ceramics, fiberart, jewelry, photography/filmmaking, and electronic media-generated art.

(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement. The student is expected to:

- (A) study a selected historical period or style of art;
- (B) analyze specific characteristics of artworks in various cultures; and
- (C) select and research career and avocational choices in art.

(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others. The student is expected to:

- (A) select and critique artworks in progress, making decisions about future directions in personal work; and
- (B) select and critique original artworks, portfolios, and exhibitions by peers or others.

§117.54. Art, Level III.

(a) General requirements. Students may fulfill fine arts and elective requirements for graduation by successfully completing one or more of the following art courses: Drawing III, Painting III, Printmaking III, Fibers III, Ceramics III, Sculpture III, Jewelry III, Photography III, Art History III, Graphic Design III, Electronic Media III, the College Board Advanced Placement (AP) Drawing, AP General Art Portfolio, AP History of Art, International Baccalaureate (IB) Art/Design SL Option A, IB Art/Design SL Option B, IB Art/Design HL (one credit per course). The prerequisite for Art History III, Graphic Design III, AP General Art Portfolio, AP History of Art, IB Art/Design SL Option A, IB Art/Design SL Option B, and IB Art/Design HL is one credit of any Art II course. The prerequisite for all other Level III art courses is one credit of Art II in the corresponding discipline.

(b) Introduction.

(1) Four basic strands—perception, creative expression/performance, historical and cultural heritage, and critical evaluation—provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. Students rely on their perceptions of the environment, developed through increasing visual awareness and sensitivity to surroundings, memory, imagination, and life experiences, as a source for creating artworks. They express their thoughts and ideas creatively, while challenging their imagination, fostering reflective thinking, and developing disciplined effort and problem-solving skills.

(2) By analyzing artistic styles and historical periods students develop respect for the traditions and contributions of diverse cultures. Students respond to and analyze artworks, thus contributing to the development of lifelong skills of making informed judgments and evaluations.

(c) Knowledge and skills.

(1) Perception. The student develops and organizes ideas from the environment. The student is expected to:

- (A) analyze visual characteristics of natural and human-made subjects in a variety of ways, illustrating flexibility in solving problems, creating multiple solutions, and thinking imaginatively; and

- (B) analyze visual qualities to express the meaning of images and symbols, using precise art vocabulary.

(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill. The student is expected to:

- (A) solve visual problems by planning and attempting a variety of solutions;
- (B) solve visual problems and develop multiple solutions for designing ideas, clarifying presentations, and evaluating consumer choices, using design skills; and

- (C) select from a variety of art media and tools to express intent in drawing, painting, printmaking, sculpture, ceramics, fiberart, jewelry, photography/filmmaking, and electronic media-generated art.

(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement. The student is expected to:

- (A) study a selected period, style, or movement in art;
- (B) trace influences of various cultures on contemporary artworks; and
- (C) analyze a selected career opportunity in art, identifying the training, skills, and plan of action necessary for realizing such a goal.

(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others. The student is expected to:

- (A) select artworks for a personal portfolio based on evaluation of developmental progress, competency in problem-solving, and a variety of visual ideas; and
- (B) analyze original artworks, portfolios, and exhibitions to form conclusions about formal qualities, historical and cultural contexts, intents, and meanings and to show innovation and provide examples of in-depth exploration of one or more themes.

§117.55. Art, Level IV.

(a) General requirements. Students may fulfill fine arts and elective requirements for graduation by successfully completing one or more of the following art courses: Drawing IV, Painting IV, Printmaking IV, Fibers IV, Ceramics IV, Sculpture IV, Jewelry IV, Photography IV, Graphic Design IV, Electronic Media IV, the College Board Advanced Placement (AP) Drawing, AP General Art Portfolio, AP History of Art, International Baccalaureate (IB) Art/Design SL Option A, IB Art/Design SL Option B, and IB Art/Design HL (one credit per course). The prerequisite for AP General Art Portfolio, AP History of Art, IB Art/Design SL Option A, IB Art/Design SL Option B, and IB Art/Design HL is one credit of any Art II course. The prerequisite for all other Level IV art courses is one credit of Art III in the corresponding discipline.

(b) Introduction.

(1) Four basic strands—perception, creative expression/performance, historical and cultural heritage, and critical evaluation—provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. Students rely on their perceptions of the environment, developed through increasing visual awareness and sensitivity to surroundings, memory, imagination, and

life experiences, as a source for creating artworks. They express their thoughts and ideas creatively, while challenging their imagination, fostering reflective thinking, and developing disciplined effort and problem-solving skills.

(2) By analyzing artistic styles and historical periods students develop respect for the traditions and contributions of diverse cultures. Students respond to and analyze artworks, thus contributing to the development of lifelong skills of making informed judgments and evaluations.

(c) Knowledge and skills.

(1) Perception. The student develops and organizes ideas from the environment. The student is expected to:

(A) create themes for personal artworks that integrate a broad range of visual observations, experiences, and imagination; and

(B) make subtle discriminations in analyzing complex visual relationships and content, using precise art vocabulary.

(2) Creative expression/performance. The student expresses ideas through original artworks, using a variety of media with appropriate skill. The student is expected to:

(A) produce an original body of artwork that integrates information from a variety of sources and demonstrates sustained, self-directed investigations into specific themes;

(B) evaluate and justify design ideas and concepts for use in personal artworks; and

(C) create artworks, singularly and in series, by selecting from a variety of art materials and tools appropriate to course work in drawing, painting, printmaking, sculpture, ceramics, fiberart, jewelry, photography/filmmaking, and electronic media-generated art;

(3) Historical/cultural heritage. The student demonstrates an understanding of art history and culture as records of human achievement. The student is expected to:

(A) identify and illustrate art history as a major source of interpretation;

(B) analyze and evaluate the influence of contemporary cultures on artworks; and

(C) evaluate a selected career in art, justifying the choice.

(4) Response/evaluation. The student makes informed judgments about personal artworks and the artworks of others. The student is expected to:

(A) develop evaluative criteria for selecting artworks to include in a portfolio and senior exhibition that demonstrate a high level of creativity and expertise in one or more art areas; and

(B) analyze a wide range of artworks to form conclusions about formal qualities, historical and cultural contexts, intents, and meanings.

§117.62. *Music, Level III.*

(a) General requirements. Students may fulfill fine arts and elective requirements for graduation by successfully completing one or more of the following music courses: Band III, Choir

III, Orchestra III, Jazz Band III, Instrumental Ensemble III, Vocal Ensemble III, the College Board Advanced Placement (AP) Music Theory, International Baccalaureate (IB) Music SL, IB Music HL (one credit per course). The prerequisite for IB Music SL and IB Music HL is one credit of any Music II course. The prerequisite for all other Level III music courses is one credit of Music II in the corresponding discipline.

(b) Introduction.

(1) Four basic strands—perception, creative expression/performance, historical and cultural heritage, and critical evaluation—provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. In music, students develop their intellect and refine their emotions, understanding the cultural and creative nature of musical artistry and making connections among music, the other arts, technology, and other aspects of social life. Through creative performance, students apply the expressive technical skills of music and critical-thinking skills to evaluate multiple forms of problem solving.

(2) By reflecting on musical periods and styles, students understand music's role in history and are able to participate successfully in a diverse society. Students analyze and evaluate music, developing criteria for making critical judgments and informed choices.

(c) Knowledge and skills.

(1) Perception. The student describes and analyzes musical sound and demonstrates musical artistry. The student is expected to:

(A) perform appropriate literature expressively;

(B) define musical performances, intervals, music notation, chord structure, rhythm/meter, and harmonic texture, using standard terminology; and

(C) identify music forms of performance and listening repertoire.

(2) Creative expression/performance. The student sings or plays an instrument, individually and in groups, performing a varied repertoire of music. The student is expected to:

(A) exhibit accurate intonation and rhythm, fundamental skills, and advanced techniques, using literature ranging from moderately difficult to difficult, while performing independently and in ensemble;

(B) demonstrate comprehension of musical styles by seeking appropriate literature for performance;

(C) perform expressively, from memory and notation, a varied repertoire of music representing styles from diverse cultures; and

(D) exhibit, describe, and critique small- and large-ensemble performance techniques experienced and observed during formal and informal concerts.

(3) Creative expression/performance. The student reads and writes music notation. The student is expected to:

(A) sight-read major, minor, modal, and chromatic melodies;

(B) read and write music that incorporates complex rhythmic patterns in simple, compound, and asymmetric meters; and

(C) interpret music symbols and terms referring to dynamics, tempo, and articulation when performing.

(4) Creative expression/performance. The student creates and arranges music within specified guidelines. The student is expected to:

(A) improvise musical melodies; and

(B) compose or arrange segments of vocal or instrumental pieces (manuscript or computer-generated).

(5) Historical/cultural heritage. The student relates music to history, to society, and to culture. The student is expected to:

(A) classify by style and by historical period or culture representative examples of music, justifying the classifications;

(B) identify and describe the effects of society, culture, and technology on music;

(C) identify and describe music-related career options including musical performance and music teaching; and

(D) define the relationships between the content, the concepts, and the processes of the other fine arts, other subjects, and those of music.

(6) Response/evaluation. The student responds to and evaluates music and musical performance. The student is expected to:

(A) evaluate musical performances by comparing them to similar or exemplary models and offering constructive suggestions for improvement; and

(B) exhibit informed concert etiquette during live performances in a variety of settings.

§117.63. Music, Level IV.

(a) General requirements. Students may fulfill fine arts and elective requirements for graduation by successfully completing one or more of the following music courses: Band IV, Choir IV, Orchestra IV, Jazz Band IV, Instrumental Ensemble IV, Vocal Ensemble IV, the College Board Advanced Placement (AP) Music Theory, International Baccalaureate (IB) Music SL, IB Music HL (one credit per course). The prerequisite for IB Music SL and IB Music HL is one credit of any Music III course. The prerequisite for all other Level IV music courses is one credit of Music III in the corresponding discipline.

(b) Introduction.

(1) Four basic strands—perception, creative expression/performance, historical and cultural heritage, and critical evaluation—provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. In music, students develop their intellect and refine their emotions, understanding the cultural and creative nature of musical artistry and making connections among music, the other arts, technology, and other aspects of social life. Through creative performance, students apply the expressive technical skills of music and critical-thinking skills to evaluate multiple forms of problem solving.

(2) By reflecting on musical periods and styles, students understand music's role in history and are able to participate

successfully in a diverse society. Students analyze and evaluate music, developing criteria for making critical judgments and informed choices.

(c) Knowledge and skills.

(1) Perception. The student describes and analyzes musical sound and demonstrates musical artistry. The student is expected to:

(A) demonstrate independence in interpreting music through the performance of appropriate literature;

(B) analyze musical performances, intervals, music notation, chordal structure, rhythm/meter, and harmonic texture, using standard terminology; and

(C) analyze music forms of performance and listening repertoire.

(2) Creative expression/performance. The student sings or plays an instrument, individually and in groups, performing a varied repertoire of music. The student is expected to:

(A) perform independently, demonstrating accurate intonation and rhythm, fundamental skills, and advanced techniques, and using literature ranging from moderately difficult to difficult;

(B) demonstrate comprehension of musical styles by selecting appropriate literature for performances;

(C) perform expressively, from memory and notation, a varied repertoire of music representing styles from diverse cultures; and

(D) exhibit, describe, and critique small- and large-ensemble performance techniques experienced and observed during formal and informal concerts.

(3) Creative expression/performance. The student reads and writes music notation. The student is expected to:

(A) sight-read major, minor, modal, and chromatic melodies;

(B) read and write music that incorporates complex rhythmic patterns in simple, compound, and asymmetric meters; and

(C) interpret music symbols and terms referring to dynamics, tempo, and articulation when performing.

(4) Creative expression/performance. The student creates and arranges music within specified guidelines. The student is expected to:

(A) improvise musical melodies; and

(B) compose or arrange vocal or instrumental pieces (manuscript or computer-generated).

(5) Historical/cultural heritage. The student relates music to history, to society, and to culture. The student is expected to:

(A) classify representative examples of music by style and by historical period or culture, justifying the classifications;

(B) describe the effects of music on society, culture, and technology;

(C) explain a variety of music and music-related career options; and

(D) define the relationships between the content, the concepts, and the processes of the other fine arts and those of music.

(6) Response/evaluation. The student responds to and evaluates music and musical performances. The student is expected to:

(A) evaluate musical performances and compositions by comparing them to similar or exemplary models and offering constructive suggestions for improvement; and

(B) exhibit concert etiquette during live performances in a variety of settings.

§117.66. Theatre, Level III.

(a) General requirements. Students may fulfill fine arts and elective requirements for graduation by successfully completing one or more of the following theatre courses: Theatre III (one credit), Technical Theatre III (one credit), Theatre Production III (one-half to one credit), International Baccalaureate (IB) Theatre Arts SL, IB Theatre Arts HL (one credit per course). The prerequisite for IB Theatre SL and IB Theatre HL is one credit of any Theatre II course. The prerequisite for all other Level III theatre courses is one credit of Theatre II in the corresponding discipline.

(b) Introduction.

(1) Four basic strands—perception, creative expression/performance, historical and cultural heritage, and critical evaluation—provide broad, unifying structures for organizing knowledge and skills students are expected to acquire. Through perceptual studies, students increase their understanding of self and others and develop clear ideas about the world. Through a variety of theatrical experiences, students communicate in a dramatic form, make artistic choices, solve problems, build positive self-concepts, and relate interpersonally.

(2) Students increase their understanding of heritage and traditions through historical and cultural studies in theatre. Student response and evaluation promote thinking and further discriminating judgment, developing students who are appreciative and evaluative consumers of live theatre, film, television, and other technologies.

(c) Knowledge and skills.

(1) Perception. The student develops concepts about self, human relationships, and the environment, using elements of drama and conventions of theatre. The student is expected to:

(A) practice theatre preparation and warm-up techniques effectively;

(B) employ stage movement and pantomime consistently;

(C) demonstrate effective voice and diction;

(D) analyze dramatic structure and genre;

(E) compare and contrast theatrical conventions of theatre to the conventions of film, television, and electronic media; and

(F) analyze the interdependence of all theatrical elements.

(2) Creative expression/performance. The student interprets characters, using the voice and body expressively, and creates dramatizations. The student is expected to:

(A) practice appropriate safety measures;

(B) analyze characters from various genres and styles, describing physical, intellectual, emotional, and social dimensions;

(C) portray believable characters in improvised and scripted scenes of various styles; and

(D) improvise and write dialogue that reveals character motivation, advances plot, provides exposition, and reveals theme.

(3) Creative expression/performance. The student applies design, directing, and theatre production concepts and skills. The student is expected to:

(A) construct and operate the technical elements of theatre safely and effectively;

(B) analyze and evaluate dramatic texts as a basis for technical discussions, considering themes, settings, times, literary styles, genres, and characters;

(C) cast and direct duet scenes;

(D) analyze the director's responsibility to the author's intent, script, actors, designers, technicians, and audience;

(E) analyze the roles of actor, ensemble, and director in production decision making and produce a unified theatrical production; and

(F) select one or more areas of theatre production for study, demonstrating responsibility, artistic discipline, and creative problem solving.

(4) Historical/cultural heritage. The student relates theatre to history, society, and culture. The student is expected to:

(A) evaluate historical and cultural influences on theatre;

(B) analyze the influence of television on American society; and

(C) define selected theatrical styles and genres.

(5) Response/evaluation. The student responds to and evaluates theatre and theatrical performances. The student is expected to:

(A) compare behavior at various types of performances and practice audience etiquette;

(B) apply the concepts of evaluation to performances and evaluate theatre, film, television, and electronic media with depth and complexity, using appropriate vocabulary;

(C) compare communication methods of theatre with that of art, music, and dance and integrate more than one art form in informal and formal performances; and

(D) make judgments about selected career and avocational opportunities in theatre, film, and television and analyze the training, skills, self-discipline, and artistic discipline needed to pursue them.

§117.67. Theatre, Level IV.

(a) General requirements. Students may fulfill fine arts and elective requirements for graduation by successfully completing one or more of the following theatre courses: Theatre Arts IV (one credit), Technical Theatre IV (one credit), Theatre Production IV (one-half

to one credit), International Baccalaureate (IB) Theatre Arts SL, IB Theatre Arts HL (one credit per course). The prerequisite for IB Theatre SL and IB Theatre HL is one credit of any Theatre III course. The prerequisite for all other Level IV theatre courses is one credit of Theatre III in the corresponding discipline.

(b) Introduction.

(1) Four basic strands—perception, creative expression/ performance, historical and cultural heritage, and critical evaluation— provide broad, unifying structures for organizing knowledge and skills students are expected to acquire. Through perceptual studies, students increase their understanding of self and others and develop clear ideas about the world. Through a variety of theatrical experiences, students communicate in a dramatic form, make artistic choices, solve problems, build positive self-concepts, and relate interpersonally.

(2) Students increase their understanding of heritage and traditions through historical and cultural studies in theatre. Student response and evaluation promote thinking and further discriminating judgment, developing students who are appreciative and evaluative consumers of live theatre, film, television, and other technologies.

(c) Knowledge and skills.

(1) Perception. The student develops concepts about self, human relationships, and the environment, using elements of drama and conventions of theatre. The student is expected to:

- (A) develop and practice theatre preparation and warm-up techniques;
- (B) employ stage movement and pantomime consistently;
- (C) develop effective use of voice and diction;
- (D) compare the dramatic structure of theatre, film, television, and electronic media;
- (E) evaluate theatrical conventions of various cultural and historical periods; and
- (F) evaluate the interdependence of all theatrical elements.

(2) Creative expression/performance. The student interprets characters, using the voice and body expressively, and creates dramatizations. The student is expected to:

- (A) evaluate and apply appropriate safety measures;
- (B) evaluate character dimensions in scripts of various genres and styles;
- (C) create and sustain believable characters; and
- (D) outline and create imaginative scripts and scenarios that include motivated character, unique dialogue, conflict, and resolution for theatre, film, or television.

(3) Creative expression/performance. The student applies design, directing, and theatre production concepts and skills. The student is expected to:

- (A) design, construct, and operate appropriate technical elements of theatre, safely and effectively, collaboratively and individually;

- (B) analyze and evaluate dramatic texts and direct brief scenes;

- (C) evaluate the director's responsibility to the author's intent, script, actors, designers, technicians, and audience;

- (D) analyze production plans that include research, rehearsal plans, technical designs, and blocking;

- (E) cast and direct a long scene or a short play, producing a unified theatrical production; and

- (F) conduct concentrated studies in one or more areas of theatre production, demonstrating responsibility, artistic discipline, and creative problem solving.

(4) Historical/cultural heritage. The student relates theatre to history, society, and culture. The student is expected to:

- (A) evaluate historical and cultural influences on theatre;

- (B) evaluate the role of live theatre, film, television, and electronic media in American society; and

- (C) trace historical and cultural developments in theatrical styles and genres.

(5) Response/evaluation. The student responds to and evaluates theatre and theatrical performances. The student is expected to:

- (A) evaluate and practice appropriate audience behavior at various types of performances;

- (B) apply evaluation concepts to performances and compare and contrast literary and dramatic criticism of theatre, film, television, or electronic media;

- (C) compare the nature, components, elements, and communication methods of theatre, music, art, and dance and compare more than one art form in a specific culture or historical period; and

- (D) evaluate career and avocational opportunities in theatre, film, television, and electronic media, justifying choice(s), and analyze the training, skills, self-discipline, and artistic discipline needed to pursue them.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Chapter 119. Texas Essential Knowledge and Skills for Agricultural Science and Technology Education

The Texas Education Agency (TEA) adopts new §§119.1-119.3, 119.11-119.13, 119.21-119.28, 119.41- 119.69, 119.81-119.88, 119.101, and 119.102, concerning agricultural science and technology education. The sections are adopted with changes to the proposed text as published in the February 28, 1997, issue of the *Texas Register* (22 TexReg 2060). The new sections establish the essential knowledge and skills for the following seven systems in agricultural science and technology education: (1) agribusiness marketing and management; (2) environmental and natural resources; (3) horticulture; (4) leadership development; (5) value-added and food processing; (6) mechanized agriculture; and (7) food and fiber production. The new sections are necessary to ensure that students throughout the state have access to the enrichment curricula. The provisions of these sections shall supersede §75.82 of this title (relating to Agricultural Science and Technology) beginning September 1, 1998.

The Texas Education Code organizes the required curriculum into two types: the foundation curriculum and the enrichment curriculum. As specified in legislation, the essential knowledge and skills of the enrichment curriculum serve as guidelines to school districts in providing instruction. In doing so, some districts may incur costs for professional development and equipment. These potential costs cannot be estimated.

Members of the public expressed concern about adoption of a certificate of initial mastery. Neither the Texas essential knowledge and skills (TEKS) nor any other rule contains reference to, promotes, or establishes a certificate of initial mastery.

The following changes have been made since the sections were proposed.

Numerous editorial changes were made throughout the sections and some topics were reorganized for clarification and simplification. Changes were also made to strengthen verbs and to eliminate references to particular instructional approaches.

Since filing of the proposed sections, legal counsel has advised that since the sections serve as guidelines for instruction, language containing or implying mandates on school districts should be stricken and replaced with more permissive language where necessary. The term "shall" appeared in some content areas in: (1) the amount of course credit to be awarded to a student for successful completion of a course; (2) some career and technology courses in references to workplace and other competencies; and (3) statements regarding the date of implementation of the provisions for each subchapter.

The term "capstone" in career and technology education courses has been replaced with the term "independent study." This change was made to clarify language. The career and technology education courses consist of an in- depth study of a business/industry that is of particular interest to a student.

Several individuals who testified at the public hearing held on March 4, 1997, stated that the career and technology education essential knowledge and skills contain references to the skills and competencies identified by the Secretary's Commission on Achieving Necessary Skills (SCANS) and thus reflect federal influence. TEA staff has carefully reviewed the sections being adopted for evidence of SCANS skills and competencies. The

sections being adopted do not contain specific references to SCANS; however, the sections do contain skills and competencies that are among those recommended by the commission. The curriculum writing teams, members of the SBOE Review Committee, and others who had suggested strengthening the TEKS drafts expressed a strong belief that some skills and competencies identified by the SCANS commission are an essential part of an effective curriculum.

In §19.2 (relating to Introductory Horticulture) and §119.3 (relating to Introductory Agriculture Mechanics), the following change was made. The term "interpersonal skills" was removed from subsection (c)(1)(B) based on a comment received stating that this term cannot be measured and therefore lacks academic rigor.

In subsection (c)(1)(D) of §§119.2, 119.3, 119.12, 119.13, 119.22-119.28, 119.42-119.69, 119.82, 119.84, 119.85, 119.87, 119.88, and 119.102, the language was amended in subsection to read "identify employer's expectations, appropriate work habits, and good citizenship skills." This change was made to clarify language in this statement.

In §119.12 (relating to Introduction to World Agricultural Science and Technology (One-Half Credit), new subsection (c)(9) was added to include language regarding the application of science and mathematical skills to mechanical agricultural systems. This language was inadvertently deleted from previous drafts.

In §119.26 (relating to Home Maintenance and Improvement) and in §119.27 (relating to Food Technology) new subsection (c)(1)(E) and subsection (c)(1)(D) were added respectively to include language regarding planning and managing agricultural experience programs. This language was inadvertently deleted from previous drafts.

The following comments have been received regarding adoption of the new sections.

Subchapter A. Introductory, Middle School.

§119.2. Introductory Horticulture.

Issue: academic rigor.

Comment. An individual stated that the term "interpersonal skills" in subsection (c)(1)(B) of §119.2 cannot be measured and therefore lacks academic rigor.

Agency Response. The agency has amended sections §119.2 and §119.3 to remove the term "interpersonal skills."

Issue: course prerequisites.

Comment. An individual commented that he felt that the course, Introductory Horticulture, should not be available at the sixth-grade level.

Agency Response. Each district can determine prerequisites; offering this course in the sixth grade is a local decision.

Subchapter B. Comprehensive, High School.

§119.12. Introduction to World Agricultural Science and Technology (One-Half Credit).

Issue: additional knowledge and skills.

Comment. An individual commented that §119.12(c) should include a new paragraph (9) that relates to the application of science and mathematical skills to mechanical agricultural systems.

Agency Response. This language was initially in a TEKS draft dated December 16, 1996, and was inadvertently omitted in the revision process. The TEA agrees with this comment and has amended the sections.

Subchapter C. Exploratory, High School

§119.26. Home Maintenance and Improvement (One-Half Credit).

Comment. An individual commented that new §119.26(c)(1)(E) §119.27(c)(1)(D) should be added to include language regarding planning and managing supervised agricultural experience programs.

Agency Response. This language was initially in a TEKS draft dated December 16, 1996, and was inadvertently omitted in the revision process. The TEA agrees with this comment and has amended the sections.

General Comments.

Issue: knowledge versus job training skills.

Comment. An individual commented that only four knowledge and skills statements are content-based and the rest are job training.

Agency Response. Students enrolled in agricultural science and technology expect career training. All of the factors in these area add up to making a student successful in horticulture.

Issue: name change for the discipline/curriculum.

Comment. Two individuals requested that the name of the subject area be changed to agricultural science and natural resources.

Agency Response. The name of the subject area cannot be changed at this point in the process of adopting the TEKS.

Issue: content and grade level.

Comment. A school district commented that the document does not meet content and grade level expectations.

Agency Response. No changes to the proposed sections are recommended based on specific recommendations not provided.

Issue: purpose of the courses.

Comment. A school district questioned the purpose of these courses.

Agency Response. These courses will prepare students for employment in the agricultural and/or natural resource industries.

Issue: changes to the document.

Comment. A school district commented that phrases such as "self-esteem" and "knowing how to learn" are vague.

Agency Response. These two phrases are not found in the adopted TEKS for agricultural science and technology.

Issue: essential knowledge and skills.

Comment. An individual commented that after reviewing the curriculum, he felt that it was just what is needed, and the curriculum is right on target.

Subchapter A. Introductory, Middle School

19 TAC §§119.1–119.3

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§119.1. *Implementation of Texas Essential Knowledge and Skills for Agricultural Science and Technology Education, Introductory.*

The provisions of this chapter shall be effective September 1, 1998.

§119.2. *Introductory Horticulture.*

(a) General requirements. This course is recommended for students in Grades 6-7.

(b) Introduction. To be prepared for careers in horticultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to horticultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in horticulture. The student is expected to:

(A) identify career development opportunities in the field of horticulture;

(B) apply competencies related to resources, information, and systems of operation in horticultural settings;

(C) demonstrate knowledge of personal and horticultural safety practices in the workplace; and

(D) identify employers' expectations, appropriate work habits, and good citizenship skills.

(2) The student recognizes the aesthetic and financial benefits of the horticultural industry. The student is expected to:

(A) prepare a landscape plan;

(B) prepare a horticultural business plan; and

(C) identify local examples of appealing and unappealing landscape plans.

(3) The student classifies and identifies plants common to the horticultural industry. The student is expected to:

(A) name plants scientifically; and

(B) recognize and identify leaf, flower, bud, and stem characteristics.

(4) The student identifies benefits and concerns of horticulture in relation to the environment. The student is expected to:

(A) demonstrate safe practices in selecting, applying, storing, and disposing of chemicals;

(B) identify appropriate sites for horticultural structures; and

(C) know proper measures for storing and disposing of growth medium and wastewater.

(5) The student describes basic plant structures and physiological processes. The student is expected to:

(A) control the greenhouse environment;

(B) determine irrigation functions and techniques; and

(C) select and identify growth materials.

(6) The student demonstrates management and marketing skills needed to establish entrepreneurship in horticultural science. The student is expected to:

(A) calculate production costs, profit, and loss;

(B) describe labeling, pricing, displaying, and advertising in relation to horticultural marketing; and

(C) describe financial controls, credit, records, and accounts in relation to horticultural management.

(7) The student analyzes the cost and maintenance of tools, equipment, and structures used in the horticultural industry. The student is expected to:

(A) identify greenhouse structures and equipment;

(B) identify nursery structures and equipment;

(C) select and operate horticultural equipment; and

(D) maintain and repair horticultural equipment.

(8) The student applies technical skills in floral design, landscaping, and the production of horticultural products. The student is expected to:

(A) identify, construct, develop, and evaluate floral designs;

(B) identify, select, establish, and maintain turf-grasses, indigenous plants, and landscapes;

(C) propagate, reproduce, transplant, and grow nursery stock, vegetables, ornamentals, fruits, and nuts; and

(D) identify and control diseases and pests in horticultural settings.

§119.3. Introductory Agricultural Mechanics.

(a) General requirements. This course is recommended for students in Grades 6-7.

(b) Introduction. To be prepared for careers in mechanized agricultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to mechanized agricultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of mechanized agriculture;

(B) apply competencies related to resources, information, and systems of operation of mechanized agriculture;

(C) demonstrate knowledge of personal and mechanical safety practices in the workplace; and

(D) identify employers' expectations, appropriate work habits, and good citizenship skills.

(2) The student identifies and safely uses hand and power tools. The student is expected to:

(A) identify and demonstrate safe use of hand tools;

(B) identify and demonstrate safe use of power tools; and

(C) identify and use measuring and layout tools.

(3) The student identifies and uses fasteners and building materials. The student is expected to:

(A) identify and safely use fasteners;

(B) identify and select wood and other building materials;

(C) identify and select concrete and masonry building materials;

(D) place, finish, and cure concrete; and

(E) demonstrate masonry construction techniques.

(4) The student plans and constructs buildings and equipment. The student is expected to:

(A) select and plan appropriate buildings and equipment;

(B) draw and read plans for cost-effective construction;

(C) compute a bill of materials; and

(D) construct buildings and equipment.

(5) The student selects and applies paint and preservatives. The student is expected to:

(A) select appropriate paints and preservatives; and

(B) demonstrate proper application, cleanup, and disposal of paints and preservatives.

(6) The student performs basic skills needed to install and maintain agricultural water supply and sanitation systems. The student is expected to:

(A) identify and perform basic plumbing skills; and

(B) plan, establish, and maintain water management systems.

(7) The student performs basic maintenance of electric motors and circuits. The student is expected to:

(A) demonstrate the basic principles and safe use of electricity;
(B) plan electrical circuits and equipment placements;
(C) install and repair electrical circuits and equipment;
and

(D) install and maintain electric motors and circuits.

(8) The student performs basic electric and oxy-fuel welding and soldering skills. The student is expected to:

(A) demonstrate oxyfuel cutting and welding procedures;

(B) demonstrate arc welding procedures;

(C) perform gas metal-arc, plasma-arc, and shielded-arc procedures; and

(D) demonstrate soldering procedures.

(9) The student services and repairs small engines. The student is expected to:

(A) know the principles of operation of small engines;

(B) maintain and troubleshoot small engines;

(C) demonstrate correct disassembly and reassemble of small engines; and

(D) demonstrate compliance with small engine safety regulations.

(10) The student performs agricultural machinery and equipment inspections, adjustments, and maintenance services. The student is expected to:

(A) demonstrate safe operation and maintenance of agricultural equipment components;

(B) perform maintenance service on component systems;

(C) identify and adjust equipment according to manufacturers' specifications; and

(D) demonstrate effective repair and reconditioning of equipment.

(11) The student plans, builds, and maintains fences. The student is expected to:

(A) plan, build, and maintain wire fences;

(B) plan, build, and maintain privacy fences; and

(C) plan, build, and maintain electric fences.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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Subchapter B. Comprehensive, High School

19 TAC §§119.11–119.13

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§119.11. Implementation of Texas Essential Knowledge and Skills for Agricultural Science and Technology Education, Comprehensive. The provisions of Chapter 119, Subchapters B-F, shall supersede §75.82 of this title (relating to Agricultural Science and Technology) beginning September 1, 1998.

§119.12. Introduction to World Agricultural Science and Technology (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12. This course may be offered to students in Grade 8 for high school credit.

(b) Introduction. To be prepared for careers in the broad field of agriculture/agribusiness, students need to attain academic skills and knowledge, to acquire knowledge and skills related to agriculture/agribusiness and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of agriculture/agribusiness;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in agriculture/agribusiness;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan supervised agricultural experience programs.

(2) The student identifies concepts related to cultural diversity. The student is expected to:

(A) identify significant similarities and differences in international agriculture;

(B) explain the variety of world markets; and

(C) know marketing factors and practices that impact other cultures.

(3) The student describes the historical, current, and future significance of the agricultural industry. The student is expected to:

(A) define agriculture;

(B) identify the scope of agriculture and its effect upon society;

(C) identify significant historical and current agricultural developments; and

(D) identify potential future scenarios for food and fiber systems.

(4) The student analyzes the structure of agricultural leadership organizations. The student is expected to:

(A) describe life skills for effective leadership;

(B) identify opportunities for leadership development; and

(C) demonstrate democratic principles in conducting effective meetings.

(5) The student explains the food and fiber system at local, state, national, and international levels. The student is expected to:

(A) identify reasons for world trade;

(B) identify the political impact of agriculture;

(C) identify the interdependency of agriculture and the environment;

(D) demonstrate the impacts of agriculture upon land, air, and water resources;

(E) identify alternative fuels; and

(F) know environmental protection and remediation methods.

(6) The student demonstrates appropriate personal and communication skills. The student is expected to:

(A) describe professional and ethical work habits;

(B) define the uses of proper etiquette and behavior;

(C) identify appropriate personal appearance and health habits;

(D) identify written and oral communication skills;

(E) apply preparation skills to prepared and extemporaneous oral presentations; and

(F) demonstrate speaking skills.

(7) The student applies appropriate research methods on agricultural topics. The student is expected to:

(A) define major fields of agricultural research and development;

(B) identify and apply research in the food and fiber products industries;

(C) explain and interpret the labeling of agricultural products; and

(D) describe the scientific method of research.

(8) The student identifies basic plant and animal science concepts. The student is expected to:

(A) define terms related to food and fiber production;

(B) describe the animal products industry;

(C) describe the plant products industry;

(D) describe the fiber products industry; and

(E) list basic management practices.

(9) The student safely applies basic science and mathematical skills to mechanical agricultural systems. The student is expected to:

(A) explain the impact of mechanization on world agricultural production;

(B) demonstrate safety and appropriate laboratory procedures;

(C) identify metal and prepare a shop plan or working drawing; and

(D) perform basic metal-working skills.

§119.13. Applied Agricultural Science and Technology (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12. This course may be offered to students in Grade 8 for high school credit.

(b) Introduction. To be prepared for careers in the broad field of agriculture/agribusiness, students need to attain academic knowledge and skills, to acquire knowledge and skills related to the broad field of agriculture/agribusiness and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of agriculture/agribusiness;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in agriculture/agribusiness;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and conduct supervised agricultural experience programs.

(2) The student identifies the nature and properties of soils and soil formations. The student is expected to:

(A) identify the components and properties of soils;

(B) describe the process of soil formation; and

(C) classify soil formations.

(3) The student performs technical skills related to plant and soil science and technology. The student is expected to:

(A) describe the structure and functions of plant parts;

- ment;
 - (B) discuss plant germination, growth, and develop-
 - (C) know plant reproduction, genetics, and breeding;
 - (D) identify plants of importance to agriculture.
- (4) The student performs technical skills related to animal science and technology. The student is expected to:
 - (A) explain animal growth and development;
 - (B) describe animal anatomy and physiology;
 - (C) identify breeds and classes of livestock; and
 - (D) discuss animal selection, reproduction, breeding, and genetics.
- (5) The student describes the principles of food science technology. The student is expected to:
 - (A) identify the importance of food science technology; and
 - (B) determine trends in world food production.
- (6) The student safely performs basic mechanical skills in agricultural applications. The student is expected to:
 - (A) identify major areas of mechanized agriculture;
 - (B) demonstrate safety and appropriate laboratory procedures;
 - (C) perform basic agricultural construction skills;
 - (D) identify lumber and computes a bill of materials; and
 - (E) identify and use fasteners.
- (7) The student explains the relationship between agriculture and the environment. The student is expected to:
 - (A) determine the effects of chemicals upon the environment;
 - (B) identify requirements for the proper use of agricultural chemicals;
 - (C) list alternative energy sources; and
 - (D) identify fuel and water conservation methods.
- (8) The student demonstrates agricultural and personal business management skills. The student is expected to:
 - (A) prepare a personal budget;
 - (B) maintain a record-keeping system; and
 - (C) identify opportunities for entrepreneurship.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research
Texas Education Agency

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Subchapter C. Exploratory, High School

19 TAC §§119.21–119.28

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§119.21. Implementation of Texas Essential Knowledge and Skills for Agricultural Science and Technology Education, Exploratory.

The provisions of Chapter 119, Subchapters B-F, shall supersede §75.82 of this title (relating to Agricultural Science and Technology) beginning September 1, 1998.

§119.22. Energy and Environmental Technology (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in the fields of environmental and natural resource systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to environmental and natural resources and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of environmental and natural resources;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in environmental and natural resources;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and conduct supervised agricultural experience programs.

(2) The student determines the importance and scope of natural resources, energy, and environment. The student is expected to:

(A) identify various types of natural resources;

(B) define the impact of natural resources on the agricultural economy; and

(C) define the geographic and demographic distribution of natural resources.

(3) The student analyzes conservation and environmental policies related to local, state, and national levels. The student is expected to:

- (A) identify factors affecting natural resources;
- (B) identify ecological controls of natural resources;

and

(C) define the roles of government, society, and property owners in natural resource policy.

(4) The student recognizes the importance of land use planning. The student is expected to:

- (A) identify the principles of land use;
- (B) define considerations for land use management;

and

(C) compare land use policy trends.

(5) The student identifies water and wastewater use and management in all settings. The student is expected to:

- (A) list the applications of water resource management;
- (B) identify urban and agricultural uses of water;
- (C) define the parameters for wastewater management;
- (D) list causes and effects of non-point source pollution associated with agriculture; and
- (E) review water use legislation.

(6) The student recognizes the use of natural resources for energy. The student is expected to:

- (A) identify natural resources used for energy;
- (B) identify agricultural products used for energy;
- (C) discuss renewable and non-renewable energy resources; and
- (D) identify policies affecting energy.

(7) The student describes air quality improvement. The student is expected to:

- (A) discuss air quality standards;
- (B) list policies relating to air quality;
- (C) identify sources and effects of air and noise pollution; and
- (D) list air pollution control programs.

(8) The student determines methods of controlling soil erosion. The student is expected to:

- (A) identify sources and types of erosion;
- (B) list harmful effects of erosion;
- (C) discuss legal aspects of erosion; and
- (D) list erosion control methods and programs.

(9) The student discusses the identifying, handling, storing, and disposing of hazardous materials. The student is expected to:

- (A) identify types of waste;
- (B) list safe handling, storing, and disposal procedures for hazardous materials; and
- (C) discuss programs and policies relating to hazardous materials.

§119.23. Exploring Aquaculture (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in the fields of environmental and natural resource systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to environmental and natural resources and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

- (A) identify career development and entrepreneurship opportunities in the field of environmental and natural resources;
- (B) apply competencies related to resources, information, interpersonal skills, and systems in environmental and natural resources;
- (C) demonstrate knowledge of personal and occupational safety practices in the workplace;
- (D) identify employers' expectations, appropriate work habits, and good citizenship skills; and
- (E) plan and conduct supervised agricultural experience programs.

(2) The student determines the nature and origins of aquaculture. The student is expected to:

- (A) identify the types and nature of aquaculture production; and
- (B) know the current status and potential of aquaculture at local, state, national, and international levels; and
- (C) discuss the origins of productive aquaculture.

(3) The student determines the biological principles, growth habits, anatomy, and morphology of aquaculture plants and animals. The student is expected to:

- (A) know the biological principles of aquaculture species;
- (B) discuss the growth of aquatic organisms; and
- (C) identify anatomical and morphological structures of aquatic organisms.

(4) The student describes water resource management. The student is expected to:

- (A) determine the properties of water;
- (B) identify appropriate water quality factors;
- (C) define adequate water resources;
- (D) manage water quality factors; and
- (E) work with and dispose of water.

(5) The student identifies aquaculture production systems. The student is expected to:

- (A) identify pond, cage, tank, and raceway growth and harvest systems;
- (B) define seed plant and organism production;
- (C) grow and process aquacrops; and
- (D) identify personal safety measures.

§119.24. Introduction to Horticultural Science (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in horticultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to horticulture and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

- (A) identify career development and entrepreneurship opportunities in the field of horticulture;
- (B) apply competencies related to resources, information, interpersonal skills, and systems of operation in horticulture;
- (C) demonstrate knowledge of personal and occupational safety practices in the workplace;
- (D) identify employers' expectations, appropriate work habits, and good citizenship skills; and
- (E) plan and conduct supervised agricultural experience programs.

(2) The student develops technical skills in dealing with horticultural plants. The student is expected to:

- (A) classify horticultural plants;
- (B) propagate plants;
- (C) manage the growth environment;
- (D) propagate and grow horticultural plants;
- (E) create floral designs;
- (F) plan and establish landscapes; and

(G) know fruit, nut, and vegetable production.

(3) The student controls common pests of horticultural plants. The student is expected to:

- (A) identify common horticultural pests; and
- (B) demonstrate safe practices in selecting, applying, storing, and disposing of chemicals.

(4) The student demonstrates marketing and management skills used in the operation of horticultural businesses. The student is expected to:

- (A) identify and maintain hand and power tools and equipment;
- (B) select appropriate tools and equipment;
- (C) identify options and opportunities for business ownership; and
- (D) know the role of small business in free enterprise.

§119.25. Introduction to Agricultural Mechanics (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in mechanized agricultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to mechanized agricultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

- (A) identify career development and entrepreneurship opportunities in the field of mechanized agriculture;
- (B) apply competencies related to resources, information, interpersonal skills, and systems of operation of mechanized agriculture;
- (C) demonstrate knowledge of personal and mechanical safety practices in the workplace;
- (D) identify employers' expectations, appropriate work habits, and good citizenship skills; and
- (E) plan and manage supervised agricultural experience programs.

(2) The student identifies and safely uses tools and equipment. The student is expected to:

- (A) identify and use hand and power tools; and
- (B) select and use measuring and marking devices.

(3) The student identifies and performs basic electric wiring skills. The student is expected to:

- (A) identify basic principles of electric wiring and wiring terminology;

- (B) perform basic electric wiring skills; and
- (C) maintain electric motors.

(4) The student performs basic plumbing skills. The student is expected to:

- (A) identify plumbing tools and fixtures;
- (B) install pipe and plumbing fixtures; and
- (C) maintain water systems.

(5) The student performs basic concrete construction skills. The student is expected to:

- (A) estimate materials and construct forms; and
- (B) reinforce, place, finish, and cure concrete.

(6) The student performs basic carpentry skills. The student is expected to:

- (A) identify building materials;
- (B) plan cost-effective construction;
- (C) apply basic carpentry skills; and
- (D) apply paints and preservatives.

(7) The student identifies fencing methods. The student is expected to:

- (A) select fencing materials; and
- (B) plan and construct fences.

(8) The student performs cold and hot metal skills. The student is expected to:

- (A) identify types of metal;
- (B) cut, file, shape, and drill metal;
- (C) select and operate oxy-fuel welding and cutting equipment; and
- (D) select and operate electric-arc welding equipment.

§119.26. Home Maintenance and Improvement (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in mechanized agricultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to mechanized agricultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

- (A) identify career development and entrepreneurship opportunities in the field of mechanized agriculture;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation of mechanized agriculture;

(C) demonstrate knowledge of personal and mechanical safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student identifies hazards and home safety needs. The student is expected to:

(A) identify home safety needs; and

(B) identify hazards in the home or farmstead.

(3) The student selects, maintains, and uses home maintenance tools, equipment, and materials. The student is expected to:

(A) identify and use wood and metal working tools;

(B) organize and store tools and equipment; and

(C) select and use wood and metal fasteners.

(4) The student services home plumbing systems. The student is expected to:

(A) repair water pipes and fixtures;

(B) service and clean plumbing systems;

(C) repair water hoses; and

(D) replace irrigation systems, bubblers, and heads.

(5) The student services and maintains simple electrical circuits. The student is expected to:

(A) demonstrate safe electrical practices;

(B) define electrical power consumption terminology;

(C) estimate loads and circuit needs;

(D) install, replace, and repair outlets, switches, light fixtures, and electric cords; and

(E) install circuit protection devices.

(6) The student services home heating and cooling systems. The student is expected to:

(A) identify the parts of the home ventilation systems;

(B) check for gas leaks;

(C) service filters and electric motors;

(D) calculate insulation values and heating/cooling loads;

(E) plan attic ventilation;

(F) perform energy efficiency checks;

(G) list solar heating applications; and

(H) maintain fireplaces, wood heaters, and chimneys.

(7) The student repairs and maintains the interior and exterior of a residential structure. The student is expected to:

- (A) calculate square footage and paint coverage;
- (B) prepare surfaces;
- (C) select appropriate paints or preservatives;
- (D) demonstrate proper application and safe use of paint and preservatives;
- (E) locate studs, repair sheet rock, trim, and wall board;
- (F) repair masonry walls; and
- (G) develop a pest control program.

(8) The student services and maintains small gasoline engines and personal vehicles. The student is expected to:

- (A) maintain correct fluid levels;
- (B) service drive belts, air cleaners, and batteries;
- (C) replace spark plugs and other engine components;
- (D) maintain tires;
- (E) lubricate bearings and joints;
- (F) identify common causes of engine failure; and
- (G) winterize engines.

§119.27. Food Technology (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in value-added and food processing systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to value-added and food processing and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

- (A) identify career development and entrepreneurship opportunities in the field of value-added and food processing;
- (B) apply competencies related to resources, information, interpersonal skills, and systems of operation of value-added and food processing;
- (C) demonstrate knowledge of personal and occupational safety practices in the workplace;
- (D) identify employers' expectations, appropriate work habits, and good citizenship skills; and
- (E) plan and manage supervised agricultural experience programs.

(2) The student explains the impact of the food technology industry. The student is expected to:

(A) know the significance of food science and technology;

(B) define trends in food production, world population, and supply and demand for food products; and

(C) discuss trends in animal/food science research.

(3) The student analyzes the nutritive value of food constituents. The student is expected to:

(A) define the terms used in food technology; and

(B) compare and contrast the nutritive value of food groups.

(4) The student identifies procedures and regulations involved in sanitation in the food industry. The student is expected to:

(A) identify food industry inspection standards;

(B) list procedures for insect and rodent control; and

(C) identify appropriate chemicals for the food industry.

(5) The student identifies regulations involved in the processing and labeling of foods. The student is expected to:

(A) list regulations dealing with preserving red meat, poultry, and fish; and

(B) know packaging, labeling, and storage requirements for red meat, poultry, and fish.

(6) The student describes the processing, packaging, quality analysis, and marketing of red meats and their by-products. The student is expected to:

(A) describe preparing livestock carcasses for market;

(B) describe United States Department of Agriculture (USDA) inspection and grading procedures;

(C) identify wholesale and retail cuts;

(D) evaluate and grade beef, pork, and lamb carcasses and wholesale cuts; and

(E) identify methods of fabricating and marketing processed meats.

(7) The student describes the processing, packaging, quality analysis, and marketing of eggs, poultry, fish, and their by-products. The student is expected to:

(A) describe processing techniques;

(B) demonstrate poultry carcass and retail cuts evaluation;

(C) identify grades and classes of eggs, poultry, fish, and seafood;

(D) fabricate specialty and value-added products;

(E) know quality and portion control procedures; and

(F) describe marketing procedures for eggs, poultry, fish, and seafood.

(8) The student describes the processing, packaging, quality analysis, and marketing of fruits, nuts, and vegetables and their by-products. The student is expected to:

(A) identify, classify, and grade fruits, nuts, and vegetables;

(B) demonstrate trimming, washing, waxing, peeling, blanching, and other marketing techniques;

(C) know critical issues in transporting, receiving, and storing fruits, nuts, and vegetables; and

(D) discuss preserving, packaging, and storing fruits, nuts, and vegetables.

(9) The student describes the processing, packaging, quality analysis, and marketing of milk and dairy products for distribution. The student is expected to:

(A) describe methods of preparing milk for processing;

(B) know methods of processing milk and dairy products;

(C) identify cultured milk products and frozen dairy desserts;

(D) process, classify, and grade cheese; and

(E) identify dairy products.

§119.28. Plant and Animal Production (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in food and fiber production systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to food and fiber production and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of food and fiber production;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in food and fiber production;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student identifies the importance and influence of soils, soil fertility, and soil conservation to society. The student is expected to:

(A) describe the physical and chemical properties of soils;

(B) explain the importance of soil and water conservation for future generations; and

(C) list methods for improving soil fertility.

(3) The student knows the importance of plants and their influence on society. The student is expected to:

(A) identify major crops of economic importance;

(B) describe plant anatomy and physiology;

(C) explain plant reproduction;

(D) identify plant nutrient requirements;

(E) perform basic plant management practices; and

(F) select varieties of plants.

(4) The student know the importance of animals and their influence on society. The student is expected to:

(A) identify trends in production and consumption of animal products;

(B) describe animal anatomy and physiology;

(C) explain animal reproduction;

(D) identify the nutritional requirements of animals;

(E) perform basic animal management practices; and

(F) select livestock and poultry.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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For further information, please call: (512) 463-9701



Subchapter D. Technical, High School

19 TAC §§119.41-119.69

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§119.41. Implementation of Texas Essential Knowledge and Skills for Agricultural Science and Technology Education, Technical.

The provisions of Chapter 119, Subchapters B-F, shall supersede §75.82 of this title (relating to Agricultural Science and Technology) beginning September 1, 1998.

§119.42. Agribusiness Management and Marketing (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in agribusiness marketing and management systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to agribusiness marketing and management and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of agribusiness marketing and management;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in agribusiness marketing and management;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student defines and examines agribusiness management and marketing and its importance to the local and international economy. The student is expected to:

(A) describe the roles and functions of management;

(B) identify key economic principles of free enterprise; and

(C) analyze the economic opportunities of agribusiness.

(3) The student defines the importance of records and budgeting in agribusiness. The student is expected to:

(A) demonstrate record-keeping procedures;

(B) identify methods of obtaining agribusiness loans; and

(C) compare methods of capital resource acquisition.

(4) The student describes issues related to government policy and recognizes concepts related to cultural diversity. The student is expected to:

(A) analyze methods of decision making;

(B) examine the effects of government policies and regulations in making management decisions;

(C) describe the management of human resources with respect to cultural diversity;

(D) identify laws pertaining to land/property ownership and uses, taxes, wills, and liabilities; and

(E) develop a personal economic philosophy.

(5) The student describes the marketing of agricultural products. The student is expected to:

(A) describe the purpose and importance of marketing;

(B) develop a marketing plan;

(C) identify the competitive environment and the impact of foreign markets;

(D) compare types of markets and influence factors; and

(E) identify methods of managing risk.

§119.43. Advanced Agribusiness Management and Marketing (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in agribusiness marketing and management systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to agribusiness marketing and management and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of agribusiness marketing and management;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in agribusiness marketing and management;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student defines and examines agribusiness management and marketing and its importance. The student is expected to:

(A) analyze the legal structure of agribusiness; and

(B) define the organizational structures of agribusiness.

(3) The student defines key issues of business success and failure. The student is expected to:

(A) relate the decision-making process with budgeting issues;

(B) analyze business records and record-keeping procedures;

- (C) determine methods of financing agribusiness; and
- (D) identify methods of obtaining capital resources.

(4) The student knows the efficiency aspects of agribusiness management. The student is expected to:

- (A) develop a marketing plan;
- (B) use management software and information technology; and
- (C) develop an entrepreneurial plan, based on personal economic philosophy.

§119.44. Entrepreneurship in Agriculture (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in agribusiness marketing and management systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to agribusiness marketing and management and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

- (A) identify career development and entrepreneurship opportunities in the field of agribusiness marketing and management;
- (B) apply competencies related to resources, information, interpersonal skills, and systems of operation in agribusiness marketing and management;
- (C) demonstrate knowledge of personal and occupational safety practices in the workplace;
- (D) identify employers' expectations, appropriate work habits, and good citizenship skills; and
- (E) plan and manage supervised agricultural experience programs.

(2) The student defines the meaning and concepts of entrepreneurship. The student is expected to:

- (A) identify the components of a business plan; and
- (B) analyze and explain business-related laws.

(3) The student knows key factors for successful entrepreneurship. The student is expected to:

- (A) evaluate product/service promotion strategies;
- (B) demonstrate business records management; and
- (C) identify human resource management skills.

(4) The student demonstrates the importance of planning for successful entrepreneurship. The student is expected to:

- (A) develop a financial management plan;
- (B) develop a marketing plan; and

- (C) present a business proposal.

§119.45. Computer Applications in Agriculture (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in agribusiness marketing and management systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to agribusiness marketing and management and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

- (A) identify career development and entrepreneurship opportunities in the field of agribusiness marketing and management;
- (B) apply competencies related to resources, information, interpersonal skills, and systems of operation in agribusiness marketing and management;
- (C) demonstrate knowledge of personal and occupational safety practices in the workplace;
- (D) identify employers' expectations, appropriate work habits, and good citizenship skills; and
- (E) plan and manage supervised agricultural experience programs.

(2) The student demonstrates utilization of electronic information and data technology to agricultural systems. The student is expected to:

- (A) analyze computer operating systems and technologies;
- (B) identify software for appropriate tasks;
- (C) apply word processing technology to agricultural documents; and
- (D) produce business letters, invoices, charts, reports, and research papers.

(3) The student applies spreadsheet technology to agricultural systems. The student is expected to:

- (A) perform appropriate mathematical processes;
- (B) generate documentation required to obtain financing for operational and capital resources; and
- (C) produce budgets, payrolls, cash flow statements, profit and loss analyses, balance sheets, inventories, tax documents, and currency conversions.

(4) The student applies database technology to agricultural systems. The student is expected to:

- (A) explain the relationships between data fields, records, and files;

- (B) locate, sort, and organize agricultural data;
- (C) search databases to retrieve information; and
- (D) export and import data.

(5) The student exchanges information utilizing distance education technologies. The student is expected to:

- (A) describe the components used in distance education technology; and
- (B) send and receive information, using e-mail, on-line services, two-way audio/video, bulletin boards, and emerging technologies.

(6) The student demonstrates the application of desktop publishing technologies to agricultural systems. The student is expected to:

- (A) identify appropriate technologies, standards, and styles;
- (B) import text and graphics into a publication; and
- (C) develop and prepare an instruction manual or other appropriate document.

(7) The student applies presentation management technologies in agricultural systems. The student is expected to:

- (A) identify guidelines for fonts, graphics, and special effects;
- (B) analyze the effectiveness of various types of presentations; and
- (C) use appropriate technology to create an agricultural presentation.

(8) The student identifies concepts related to efficient performance. The student is expected to:

- (A) describe the components of a computer network;
- (B) identify and compare factors concerning network utilization; and
- (C) analyze emerging technologies in information utilization.

§119.46. Wildlife and Recreation Management (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in environmental and natural resource systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to environmental and natural resources and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of environmental and natural resources;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in environmental and natural resources;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and conduct supervised agricultural experience programs.

(2) The student analyzes the importance of wildlife with an emphasis on use and management. The student is expected to:

(A) analyze the importance of wildlife and recreation management;

(B) know the history of wildlife and recreation management; and

(C) discuss policies, laws, and the administration of wildlife and recreation management.

(3) The student knows the scientific basis for wildlife management. The student is expected to:

(A) identify the basic ecological concepts of game management;

(B) identify game, non-game, and fish species; and

(C) describe the management of wildlife populations.

(4) The student knows the interrelationships between the various public aspects of wildlife and outdoor recreation management. The student is expected to:

(A) identify special areas of importance in wildlife and recreation management;

(B) identify laws and regulations regarding the utilization of wildlife resources;

(C) know laws and regulations regarding recreation safety;

(D) list factors involved in landowner and property rights; and

(E) demonstrate specific safety certification requirements.

§119.47. Range Management and Ecology (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in environmental and natural resource systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to environmental and natural resources and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of environmental and natural resources;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in environmental and natural resources;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and conduct supervised agricultural experience programs.

(2) The student describes the significance of native rangeland as a renewable resource. The student is expected to:

(A) explain the relationship of rangeland to the environment;

(B) discuss the interrelationships of water, alternative use, carrying capacity, and population; and

(C) identify and classify range plants and their importance in the rangeland ecosystem.

(3) The student defines the characteristics of the rangeland ecosystem. The student is expected to:

(A) define ecology, photosynthesis, energy flow, and climax vegetation;

(B) describe the impact of rangeland on the water cycle and water quality;

(C) determine capacities and limitations of rangelands;

(D) select appropriate livestock management practices for rangeland; and

(E) select appropriate management practices for wildlife.

(4) The student identifies methods of improving rangelands for livestock and wildlife. The student is expected to:

(A) identify undesirable plants on rangeland;

(B) describe enhancement practices;

(C) define methods of rangeland improvement; and

(D) discuss the importance of records and research in range management and ecology.

§119.48. Forestry and Wood Technology (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in environmental and natural resource systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to environmental and natural resources and the workplace, and to

develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of forestry and wood technology;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in forestry and wood technology;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and conduct supervised agricultural experience programs.

(2) The student describes the principles of forestry and wood technology. The student is expected to:

(A) describe the historical and economic significance of forestry;

(B) know tree anatomy and growth; and

(C) identify trees.

(3) The student demonstrates forestry biometrics skills. The student is expected to:

(A) calculate tree volume;

(B) determine timber growth and yield;

(C) cruise timber stands; and

(D) scale logs for quality and volume.

(4) The student performs forestry management skills. The student is expected to:

(A) identify management options;

(B) define multiple-use possibilities; and

(C) control destructive agents.

(5) The student identifies softwood and hardwood forest management and utilization practices. The student is expected to:

(A) identify principles of forestry economics;

(B) list sources of forestry management assistance;

(C) identify harvesting practices and equipment;

(D) describe merchandising practices; and

(E) identify research in forestry and wood technology.

(6) The student describes the role of wood technology in forest product development. The student is expected to:

(A) compare timber manufacturing processes and products; and

(B) list research and development issues in forestry and wood technology.

§119.49. Environmental Technology (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in environmental and natural resource systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to environmental and natural resources and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of environmental technology;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in environmental technology;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and conduct supervised agricultural experience programs.

(2) The student knows the natural state of the environment. The student is expected to:

(A) describe the anatomy of the atmosphere and the atmospheric cycle;

(B) identify the distribution and properties of water and the hydrologic cycle;

(C) list the components, dynamics, properties, and functions of soils; and

(D) identify living organisms based on consumer/producer functions and feeding relationships.

(3) The student explains the relationships between people, environment, and natural resources. The student is expected to:

(A) define and categorize natural resources;

(B) define and categorize renewable and non-renewable resources; and

(C) identify the cause and effect relationships and the need for stewardship.

(4) The student explains the use and abuse of natural resources. The student is expected to:

(A) identify the progression of use leading to environmental degradation;

(B) explain the impact of human population dynamics on the environment;

(C) discuss the abuse of natural resources; and

(D) explain the resulting environmental consequences.

(5) The student discusses environmental history, laws, legislation, and regulations. The student is expected to:

(A) identify major events and prominent people impacting environmental technology;

(B) discuss environmental legislation, ethics, stewardship, and education;

(C) list restoration and conservation practices and discuss their implications;

(D) discuss and relate the levels of environmental preservation efforts; and

(E) develop a personal environmental philosophy.

§119.50. Landscape Design, Construction, and Maintenance (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in horticultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to horticultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of landscape design, construction, and maintenance;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in landscape design, construction, and maintenance;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and conduct supervised agricultural experience programs.

(2) The student identifies environmental, aesthetic, and financial benefits of landscaped sites. The student is expected to:

(A) assess soil characteristics and environmental conditions;

(B) complete a site analysis checklist;

and (C) use graphics design tools to produce a site sketch;

(D) identify plants and structures used in designing landscapes.

(3) The student performs landscape business procedures. The student is expected to:

(A) interview potential clients;

(B) prepare cost estimates and service schedules; and

(C) execute service contracts.

(4) The student analyzes the cost and maintenance of tools, equipment, and structures used in the landscape industry. The student is expected to:

(A) identify, store, and maintain hand and power tools and equipment;

(B) prepare plant growing sites;

(C) install turf, landscape plants, and structures; and

(D) perform site maintenance services such as fertilizing and watering.

§119.51. Horticultural Plant Production (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in horticultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to horticultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of horticultural plant production;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in horticultural plant production;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and conduct supervised agricultural experience programs.

(2) The student classifies and identifies plants produced for use in horticulture. The student is expected to:

(A) name plants scientifically; and

(B) classify and identify plants based on characteristics.

(3) The student identifies basic plant structures and physiological processes used in plant production. The student is expected to:

(A) identify the basic structure and functions of plant parts;

(B) differentiate between monocots and dicots and male and female plants;

(C) germinate and transplant seeds; and

(D) demonstrate asexual propagation techniques.

(4) The student compares the cost and maintenance of tools, media, equipment, and structures used in horticultural plant production. The student is expected to:

(A) identify, maintain, and store hand and power tools and equipment;

(B) select, prepare, and sterilize plant growth media, mulches, and compost;

(C) select, plant, fertilize, water, and manage greenhouse and nursery plants; and

(D) demonstrate the skills of greenhouse operation and environmental control.

(5) The student demonstrates principles related to the management and production of greenhouse and nursery crops. The student is expected to:

(A) schedule production cycles;

(B) inventory and store plants; and

(C) discuss marketing, transportation, and sales of greenhouse crops.

§119.52. Floral Design and Interior Landscape Management (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in horticultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to horticultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of floral design and interior landscape development;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in floral design and interior landscape development;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and conduct supervised agricultural experience programs.

(2) The student identifies design principles and techniques in floral art and interiorscapes. The student is expected to:

(A) identify the aesthetic benefits and history of floral design;

(B) classify and identify flowers and plants used in floral design;

(C) use temperature, preservatives, and cutting techniques to increase keeping quality; and

(D) identify tools, chemicals, and equipment used in floral design.

(3) The student demonstrates floral design principles. The student is expected to:

(A) evaluate geometric floral designs using cut flowers;

(B) evaluate geometric floral designs using silk flowers;

(C) prepare corsages and boutonnieres; and

(D) prepare floral designs for specific occasions.

(4) The student demonstrates interiorscape principles and practices. The student is expected to:

(A) classify and identify tropical plants;

(B) fertilize, prune, and water tropical plants, and manage pests; and

(C) demonstrate design principles.

§119.53. Advanced Floral Design (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in horticultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to horticultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of floral design;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in floral design;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and conduct supervised agricultural experience programs.

(2) The student demonstrates contemporary designs, business practices, specialty items, creativity, and careers in the floral industry by developing advanced floral design skills. The student is expected to:

(A) classify and identify specialty floral items; and

(B) demonstrate the technical skills for increasing the keeping qualities of cut flowers and foliage.

(3) The student knows the management factors of floral enterprises. The student is expected to:

(A) demonstrate pricing and order processing skills; and

(B) list service delivery options related to effectiveness.

(4) The student creates contemporary floral designs. The student is expected to:

(A) evaluate and appraise floral designs;

(B) prepare cost-effective designs; and

(C) create specialty designs to expand artistic expression.

§119.54. Fruit, Nut, and Vegetable Production (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in horticultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to horticultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities for fields of fruit, nut, and vegetable production;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in fruit, nut, and vegetable production;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and conduct supervised agricultural experience programs.

(2) The student knows fruit, nut, and vegetable production as it relates to propagating, horticultural food crops. The student is expected to:

- (A) identify environmental concerns and benefits of fruit, nut, and vegetable production;
- (B) classify, identify, and evaluate fruit, nut, and vegetable crops;
- (C) explain basic plant structures and physiological processes; and
- (D) propagate fruit, nut, and vegetable crops.

(3) The student discusses growing horticultural food crops. The student is expected to:

- (A) identify tools and equipment used in horticultural production;
- (B) discuss soil and nutrient management;
- (C) select, apply, store, and dispose of chemicals; and
- (D) control pests and prunes plant material.

(4) The student maintains horticultural food crops. The student is expected to:

- (A) prepare mulches and compost;
- (B) fertilize and water plants;
- (C) construct plant growth structures; and
- (D) perform and interpret soil tests.

(5) The student discusses the marketing of horticultural food crops. The student is expected to:

- (A) harvest fruits, nuts, and vegetables;
- (B) grade fruits, nuts, and vegetables;
- (C) pack and store fruit, nut, and vegetable crops; and
- (D) market fruit, nut, and vegetable crops.

§119.55. Personal Skill Development in Agriculture (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in leadership development systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to leadership development systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

- (A) identify career development and entrepreneurship opportunities in the field of personal skill development;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in personal skill development;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and conduct supervised agricultural experience programs.

(2) The student demonstrates personal skills development related to effective leadership. The student is expected to:

(A) describe the importance of positive self-concept, social skills, and maintaining a professional image, with respect to cultural diversity;

(B) identify acceptable leadership styles; and

(C) prepare personal resumes and employment applications.

(3) The student discusses employer/employee responsibilities. The student is expected to:

(A) know work-related and business-related ethics;

(B) list methods for working effectively with co-workers;

(C) practice job interview and evaluation skills; and

(D) outline a complaints and appeals process.

(4) The student communicates effectively with groups and individuals. The student is expected to:

(A) identify appropriate written and verbal communications in agribusiness;

(B) demonstrate speech preparation and delivery skills;

(C) demonstrate effective listening in a variety of settings;

(D) demonstrate non-verbal communications skills and effective listening strategies; and

(E) discuss the importance of friendship and group organization.

(5) The student demonstrates the factors of group and individual efficiency. The student is expected to:

(A) define the significance of personal and group goals;

(B) discuss the importance of time management and teamwork;

(C) list the steps in the decision-making and problem-solving processes; and

(D) demonstrate a working knowledge of parliamentary law.

§119.56. Agricultural Communications (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in leadership development systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to leadership development systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of agricultural communications;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in agricultural communications;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and conduct supervised agricultural experience programs.

(2) The student identifies agricultural communications in relation to utilizing appropriate spoken communications techniques and procedures. The student is expected to:

(A) identify the importance of verbal and non-verbal communications;

(B) know the importance of communicating factual and unbiased data and information obtained from reliable sources;

(C) demonstrate speech preparation and delivery skills; and

(D) identify journalistic interviewing skills and appropriate speaking styles.

(3) The student demonstrates effective written communications skills. The student is expected to:

(A) identify appropriate writing styles related to the delivery method and target audience;

(B) identify bias information in written materials; and

(C) prepare a written informative report.

(4) The student demonstrates effective visual communications skills. The student is expected to:

(A) demonstrate photography skills as they apply to effective communications;

(B) prepare a photo or video essay on agriculture/agribusiness; and

(C) utilize appropriate technology in agricultural communications.

§119.57. Agricultural Structures Technology (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in mechanized agricultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to mechanized agricultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of agricultural structures technology;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in agricultural structures technology;

(C) demonstrate knowledge of personal and mechanical safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student demonstrates the principles and practices of mechanized agriculture related to planning and constructing agricultural structures. The student is expected to:

(A) select and locate agricultural buildings;

(B) estimate materials needed for construction and costs;

(C) select appropriate equipment for environmental control;

(D) demonstrate computer-assisted techniques of design; and

(E) develop working drawings.

(3) The student plans, constructs, and maintains fences, corrals, and other agricultural enclosures. The student is expected to:

(A) select and locate enclosures;

(B) estimate materials needed for construction and costs;

(C) define appropriate construction methods; and

(D) select appropriate controls and components.

(4) The student installs, services, and maintains electrical systems. The student is expected to:

(A) know the basic terms and principles of electricity;

(B) estimate electrical needs and loads;

(C) plan installations using the National Electrical Code and local codes;

- (D) select circuit wiring materials and supplies; and
- (E) demonstrate minor electrical repairs.

(5) The student constructs agricultural structures. The student is expected to:

- (A) form and place concrete slabs;
- (B) install framing, doors, windows, and roofing;
- (C) discuss the uses of masonry and tilt-wall construction;
- (D) identify nontraditional structural building techniques;
- (E) select and use surveying equipment; and
- (F) plan, establish, and maintain water management systems.

§119.58. Agricultural Metal Fabrication Technology (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in mechanized agricultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to mechanized agricultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

- (A) identify career development and entrepreneurship opportunities in the field of metal fabrication;
- (B) apply competencies related to resources, information, interpersonal skills, and systems of operation in metal fabrication;
- (C) demonstrate knowledge of personal and mechanical safety practices in the workplace;
- (D) identify employers' expectations, appropriate work habits, and good citizenship skills; and
- (E) plan and manage supervised agricultural experience programs.

(2) The student knows metal joining technology and processes relating to assembly of equipment in agricultural mechanics operations. The student is expected to:

- (A) utilize appropriate tools, equipment, and facilities; and
- (B) identify and determine properties, types, and uses of metal.

(3) The student uses appropriate bench metal techniques. The student is expected to:

- (A) select and use oxy-fuel equipment;

- (B) select and use electric arc welding equipment; and
- (C) apply specialty welding and cutting techniques;

(4) The student plans and performs cost-effective construction techniques. The student is expected to:

- (A) demonstrate the lay-out process;
- (B) utilize computer-assisted design techniques;
- (C) read and interpret designs and sketches;
- (D) prepare bills of material;
- (E) measure, mark, and cut material; and
- (F) perform specialized nonmetallic fabrication techniques.

§119.59. Agricultural Power Technology (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in mechanized agricultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to mechanized agricultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

- (A) identify career development and entrepreneurship opportunities in the field of agricultural power technology;
- (B) apply competencies related to resources, information, interpersonal skills, and systems of operation of agricultural power technology;
- (C) demonstrate knowledge of personal and mechanical safety practices in the workplace;
- (D) identify employers' expectations, appropriate work habits, and good citizenship skills; and
- (E) plan and manage supervised agricultural experience programs.

(2) The student utilizes appropriate shop equipment and procedures. The student is expected to:

- (A) identify and select tools and equipment;
- (B) maintain and store tools and equipment; and
- (C) design a service center.

(3) The student selects, operates, and maintains small engines. The student is expected to:

- (A) describe principles of operation of internal combustion engines and related power systems;
- (B) disassemble and reassemble small air-cooled engines; and

(C) select, maintain, and troubleshoot small air-cooled engines.

(4) The student selects, operates, and maintains agricultural machines and equipment. The student is expected to:

- (A) identify and select appropriate agricultural equipment;
- (B) identify and maintain component materials;
- (C) identify and use fasteners;
- (D) identify and service monitoring, sensing, and metering devices; and
- (E) adjust, calibrate, maintain, and operate equipment.

(5) The student selects, operates, and maintains tractors and power systems. The student is expected to:

- (A) select and operate tractors;
- (B) maintain intake and exhaust systems;
- (C) select lubricants and maintain lubrication systems;
- (D) maintain fuel systems, power trains, and hydraulic systems;
- (E) maintain direct-current electrical system; and
- (F) maintain steering and braking systems.

§119.60. Agricultural Electronics (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in the field of mechanized agricultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to mechanized agricultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

- (A) identify career development and entrepreneurship opportunities in the field of agricultural electronics;
- (B) apply competencies related to resources, information, interpersonal skills, and systems of operation in agricultural electronics;
- (C) demonstrate knowledge of personal and mechanical safety practices in the workplace;
- (D) identify employers' expectations, appropriate work habits, and good citizenship skills; and
- (E) plan and manage supervised agricultural experience programs.

(2) The student demonstrates the mathematical and scientific principles and concepts involved in producing and controlling electronic impulses. The student is expected to:

- (A) explain basic principles of electromagnetic induction;
- (B) discuss operation of tools and mechanical, electrical, and electronic test equipment; and
- (C) explain the electron and hole theory of current flow related to electronics.

(3) The student describes principles of operation of electronic devices. The student is expected to:

- (A) detail the use of electronic impulse signals to transfer information;
- (B) demonstrate switches, sensors, and transducers;
- (C) operate microprocessors and data storage devices;
- (D) operate actuators and displays; and
- (E) discuss the use of radio waves, laser alignment, and fiber optic equipment.

(5) The student diagnoses, services, and repairs electronic agricultural equipment. The student is expected to:

- (A) discuss the integration of electronic sensing and measuring;
- (B) demonstrate controlling, actuating, and processing; and
- (C) know displaying and data storage systems in various agricultural applications.

(6) The student applies appropriate methods to analyze, install, diagnose, service, and/or repair electronic equipment. The student is expected to:

- (A) use schematics and manuals;
- (B) demonstrate troubleshooting techniques; and
- (C) operate test equipment.

§119.61. Specialty Agriculture (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in food and fiber production systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to food and fiber production and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

- (A) identify career development and entrepreneurship opportunities in the field of specialty agricultural enterprises;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in specialty agricultural enterprises;

(C) demonstrate knowledge of personal and mechanical safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student analyzes specialty agriculture related to selecting, producing, and marketing specialty agriculture enterprises. The student is expected to:

(A) identify specialty agriculture products and enterprises; and

(B) analyze production requirements relating to specialty agriculture enterprises;

(3) The student performs basic management practices for specialty agriculture enterprises. The student is expected to:

(A) discuss disease and pest control;

(B) know nutritional requirements;

(C) plan facilities and equipment; and

(D) discuss risk management factors.

(4) The student identifies innovative strategies for marketing specialty agriculture products. The student is expected to:

(A) conduct a market search;

(B) design a promotional activity;

(C) plan a marketing strategy;

(D) describe processing, transporting, and storing considerations; and

(E) plan integrated systems for specialty agriculture enterprises.

§119.62. Animal Science (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in food and fiber production systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to food and fiber production and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of animal science;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in animal science;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student explains animal anatomy and physiology related to nutrition, reproduction, health, and management of domesticated animals. The student is expected to:

(A) know the skeletal, muscular, respiratory, and circulatory systems of animals;

(B) explain the anatomy and physiology of other systems; and

(C) explain vital signs and normal behavior.

(3) The student determines nutritional requirements of ruminant and non-ruminant animals. The student is expected to:

(A) analyze the digestive system;

(B) identify sources of nutrients and classes of feed;

(C) identify vitamins, minerals, and feed additives;

(D) formulate rations; and

(E) discuss feeding practices and feed quality issues.

(4) The student explains animal genetics and reproduction. The student is expected to:

(A) analyze the reproductive system;

(B) explain the uses of genetics in animal agriculture;

(C) list systems of animal breeding; and

(D) explain current technologies in animal reproduction.

(5) The student identifies animal pests and diseases. The student is expected to:

(A) list the role of bacteria, fungi, viruses, genetics, and nutrition in disease;

(B) identify methods of disease control, treatment, and prevention; and

(C) evaluate diseases and parasites of poultry.

(6) The student recognizes livestock management techniques. The student is expected to:

(A) perform common surgical skills;

(B) perform common immunization skills;

(C) demonstrate livestock identification procedures; and

(D) practice proper restraining methods.

(7) The student knows current topics in animal science. The student is expected to:

(A) identify the legal aspects of animal welfare and rights; and

(B) evaluate breeding animals selected by performance testing, production records, progeny testing, and visual appraisal.

§119.63. Advanced Animal Science (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in food and fiber production systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to food and fiber production and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of animal science;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in animal science;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student demonstrates principles relating to the interrelated human, scientific, and technological dimensions of scientific animal agriculture and the resources necessary for producing domesticated animals. The student is expected to:

(A) evaluate market classes and grades of livestock (live animal and carcass);

(B) identify animal products and consumption patterns relative to human diet and health issues;

(C) describe the growth and development of livestock in the world; and

(D) discuss the elements of the equine industry.

(3) The student applies the principles of genetics and breeding to livestock improvement. The student is expected to:

(A) identify reproductive cycles and systems of mating;

(B) outline the embryo transfer process;

(C) discuss sex-linked characteristics;

(D) know the process of embryo transfer; and

(E) explain animal behavior and its relationship to livestock management.

(4) The student examines animal anatomy and physiology in livestock species. The student is expected to:

(A) identify the external anatomy;

(B) identify parts of the circulatory, genito-urinary, respiratory, nervous, and endocrine systems;

(C) identify epithelial, connective, and muscular tissue; and

(D) discuss disease prevention and control.

(5) The student recognizes policies and issues in animal science issues. The student is expected to:

(A) discuss the impact of biotechnology;

(B) review the issues surrounding animal welfare;

(C) examine environmental physiology, comparative anatomy, and physiology of digestion in livestock;

(D) apply principles of nutrition to maximize feed efficiency in livestock; and

(E) design, conduct, and complete research to solve a self-identified problem in scientific animal agriculture.

(6) The student discusses slaughter livestock operations. The student is expected to:

(A) list the stages of animal growth;

(B) outline the slaughter process;

(C) discuss federal and state meat inspection; and

(D) identify meat and meat by-products.

(7) The student explores methods of marketing livestock. The student is expected to:

(A) list methods of marketing livestock; and

(B) list methods of marketing meat and meat products.

§119.64. Plant and Soil Science (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in food and fiber production systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to food and fiber production and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of plant and soil science;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in plant and soil;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student analyzes plant and soil science as it relates to soil and plant relationships affecting the production of food and fiber. The student is expected to:

(A) recognize the importance and interrelationship of soil and plants; and

(B) practice the techniques of land evaluation.

(3) The student analyzes soil science as it relates to food and fiber production. The student is expected to:

(A) explain soil formations;

(B) evaluate the properties and nature of soils;

(C) recognize conservation of soil and water and related agencies; and

(D) perform soil management practices.

(4) The student analyzes plant science as it relates to food and fiber production. The student is expected to:

(A) analyze plant physiology, genetics, and reproduction;

(B) recognize the characteristics of quality seed;

(C) identify plant pests and diseases and their causes, preventions, and treatments;

(D) perform plant management practices; and

(E) identify trends in plant production.

§119.65. Advanced Plant and Soil Science (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in food and fiber production systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to food and fiber production and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of plant and soil science;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in plant and soil science;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student demonstrates skills relating to the interrelated human, scientific, and technological dimensions of crop production and the resources necessary for producing domesticated plants. The student is expected to:

(A) assess the importance of the U.S. impact on world commodity markets;

(B) describe the growth and development of major crops;

(C) apply the principles of genetics and plant breeding in predicting the impact of current advances in genetics; and

(D) examine the development of crop varieties through the origin of agriculture.

(3) The student identifies key factors in large-scale agricultural production. The student is expected to:

(A) explain the physiological basis of crop yields;

(B) manage crop production for maximum profit and efficiency;

(C) examine the interrelationship of plants, animals, and soils; and

(D) design and conduct experiments to support known principles of genetics.

(4) The student develops scenarios for advances in plant and soil science. The student is expected to:

(A) design, conduct, and complete research to solve self-identified problems; and

(B) use charts/tables/graphs to prepare written summaries of results and data obtained in a laboratory activity and an individual scientific research project.

§119.66. Equine Science (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in food and fiber production systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to food and fiber production and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of equine science;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in equine science;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student analyzes equine science as it relates to the selection of horses. The student is expected to:

(A) recognize the importance of the equine industry; and

(B) evaluate and select horses.

(3) The student knows the nutritional requirements of horses. The student is expected to:

(A) determine nutritional requirements of horses;

(B) describe the anatomy and physiology of horses; and

(C) explain methods of maintaining horse health and soundness.

(4) The student analyzes equine science as it relates to the management of horses. The student is expected to:

(A) select equipment and facilities for horses;

(B) demonstrate methods of handling horses safely; and

(C) identify the procedures for breeding horses.

§119.67. Applied Entomology (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in food and fiber production systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to food and fiber production and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of entomology;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation of entomology;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student demonstrates skills related to integrated pest management programs for the control of insect pests in agriculture and the environment. The student is expected to:

(A) describe integrated pest management;

(B) compare the relationship of insect management to environmental considerations; and

(C) discuss policies, laws, and administration of pesticide use.

(3) The student identifies and controls insects. The student is expected to:

(A) identify general characteristics of insects;

(B) identify beneficial insects and insect pests;

(C) describe chemical control of insect pests; and

(D) identify current insect pest management practices.

(4) The student complies with pesticide safety regulations. The student is expected to:

(A) describe pesticide application equipment and calibration procedures;

(B) identify alternatives to insecticide control of insect pests; and

(C) know current pesticide application procedures.

§119.68. Agricultural Biotechnology (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in food and fiber production systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to food and fiber production and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of agricultural biotechnology;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in agricultural biotechnology;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student knows the basics of molecular biology and the application of these principles in the agricultural industry. The student is expected to:

(A) identify the role of biotechnology in agriculture; and

(B) identify fundamental principles of cell biology and molecular genetics.

(3) The student demonstrates basic biological principles. The student is expected to:

(A) apply the principles of Mendelian genetics to animal and plant improvement;

(B) examine laboratory techniques for manipulating Deoxyribonucleic Acid (DNA) in genetic engineering;

(C) apply principles of DNA fingerprinting to genome mapping and marker assisted selection of crops and livestock;

(D) apply scientific measurements and calculations; and

(E) describe the scientific method.

(4) The student integrates principles of plant science into biotechnology. The student is expected to:

(A) explain basic plant physiology and reproduction; and

(B) apply basic principles to the development of plant tissue culture and production of genetically engineered crops.

(5) The student identifies current trends and issues in biotechnology. The student is expected to:

(A) describe modern reproductive practices in livestock production;

(B) explain the role of microbes in producing bio-products, energy production, and environmental management;

(C) explain the regulatory aspects of biotechnology; and

(D) discuss ethical issues in modern biotechnology.

§119.69. Agricultural Science and Technology Independent Study (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. To be prepared for careers in the broad field of agriculture/agribusiness, students need to attain academic skills and knowledge, to acquire knowledge and skills related to agriculture/agribusiness and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of agriculture/agribusiness;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in food and fiber production;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student identifies independent study in agriculture as it fits the planned, coherent sequence of courses related to individual career concentration areas. The student is expected to:

(A) develop a school-based learning activity in collaboration with the teacher and a related industry mentor, which provides an in-depth study of at least one aspect of a selected agricultural industry or business;

(B) present the project in at least two formats (model, graphic, verbal, written, etc.) to a panel of students, teachers, and representatives of a career area; and

(C) deliver the project's final product(s) which demonstrate(s) the use of a variety of resources, technologies, interpersonal skills, and communication skills.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Subchapter E. Agricultural Industry, High School 19 TAC §§119.81-119.88

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§119.81. Implementation of Texas Essential Knowledge and Skills for Agricultural Science and Technology Education, Agricultural Industry.

The provisions of Chapter 119, Subchapters B-F, shall supersede §75.82 of this title (relating to Agricultural Science and Technology) beginning September 1, 1998.

§119.82. Aquaculture Production (One to Three Credits).

(a) General requirements. This course is recommended for students in Grades 11-12.

(b) Introduction. To be prepared for careers in environmental and natural resource systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to environmental and natural resource systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of environmental and natural resources;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation of environmental and natural resources;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student demonstrates the concepts related to the importance facilities, harvest, processing, and marketing of aquaculture products. The student is expected to:

(A) discuss the importance and progress of aquaculture as an emerging industry; and

(B) classify and identify plant and animal aquaculture species.

(3) The student demonstrates concepts related to optimum production. The student is expected to:

(A) describe nutritional aspects of aquaculture production;

(B) determine requirements for optimum growth of species-specific aquacrops; and

(C) prescribe and administer treatments for diseases, parasites, predators, and pests of species-specific aquacrops.

(4) The student manages the water resource factor. The student is expected to:

(A) analyze water quality factors in an aquaculture environment;

(B) prescribe and administer treatments or actions to bring water quality into productive parameters; and

(C) conduct activities designed to correctly dispose of aquaculture waters.

(5) The student manages the production factors of an aquaculture enterprise. The student is expected to:

(A) identify methods of producing and rearing seed-stock in an aquaculture production system;

(B) plan and design aquaculture facilities;

(C) describe the characteristics, advantages, and disadvantages of various production facilities of aquacrops; and

(D) perform activities for species-specific production, harvesting, and processing of aquacrops.

(6) The student manages the aquaculture enterprise. The student is expected to:

(A) discuss the importance of aquaculture management; and

(B) conduct activities related to effective marketing of aquaculture products.

§119.83. Agricultural Resources (One to Three Credits).

(a) General requirements. This course is recommended for students in Grades 11-12.

(b) Introduction. To be prepared for careers in environmental and natural resource systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to environmental and natural resource systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of environmental and natural resources;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in environmental and natural resources;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student manages natural resources in relation to land, water, and air management. The student is expected to:

(A) discuss the importance of agricultural resources to individuals and society; and

(B) develop long-range land, water, and air quality management plans.

(3) The student develops management skills for natural resources. The student is expected to:

(A) identify skills needed to manage fish and other aquatic resources;

(B) identify skills needed to manage wildlife and wildlife habitat; and

(C) design plans for utilizing outdoor recreational facilities and/or natural resources.

§119.84. Meats Processing (One to Three Credits).

(a) General requirements. This course is recommended for students in Grades 11-12.

(b) Introduction. To be prepared for careers in value-added and food processing systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to value-added and food processing systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the value-added and food processing industry;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in the value-added and food processing industry;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student knows the relationship of the meat industry to the free enterprise system. The student is expected to:

(A) explain the importance of the meat processing industry in the free enterprise system; and

(B) explain trends in the consumption of meat products.

(3) The student understands consumer satisfaction issues. The student is expected to:

(A) practice equipment maintenance and sanitation procedures;

(B) explain the factors that affect meat palatability;

(C) fabricate red meat, poultry, game, and fish into wholesale and retail cuts; and

(D) demonstrate work ethics, customer relations skills, and management competencies consistent with industry expectations.

(4) The student understands quality control issues in food science. The student is expected to:

(A) practice procedures relating to safe manufacture of foods through hygienic food handling, and processing;

(B) develop and maintain sanitation schedules;

(C) describe hazard analysis - critical control point implementation issues; and

(D) list food safety laws.

(5) The student identifies marketing considerations for meat processing. The student is expected to:

(A) practice methods of merchandising red meat, poultry, game, fish, and their by-products;

(B) identify, select, and grade meat; and

(C) practice principles of meat preservation and packaging.

§119.85. Horticulture (One to Three Credits).

(a) General requirements. This course is recommended for students in Grades 11-12.

(b) Introduction. To be prepared for careers in horticultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to horticultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of horticulture;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in horticulture;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student demonstrates technical and managerial skills related to the horticultural agribusiness industry. The student is expected to:

(A) recognize the importance and benefits of the horticultural industry; and

(B) recognize benefits and concerns of horticulture in relation to the environment.

(3) The student develops technical expertise in horticulture. The student is expected to:

(A) classify and identify horticultural plants;

(B) perform propagation, growing, and maintenance skills relating to horticultural plant production and landscaping; and

(C) distinguish between various pest control practices used in the production of horticultural crops.

(4) The student develops management expertise in horticulture. The student is expected to:

(A) analyze the cost and maintenance of tools, equipment, and structures used in horticultural plant production;

(B) demonstrate technical and managerial skills related to the horticulture industry;

(C) integrate plant growing principles related to the management of environmental conditions required for growing horticultural crops;

(D) demonstrate work ethics, customer relations skills, and management competencies consistent with industry expectations; and

(E) apply design principles through the development of landscapes and floral designs.

§119.86. Agricultural Power and Machinery (One to Three Credits).

(a) General requirements. This course is recommended for students in Grades 11-12.

(b) Introduction. To be prepared for careers in mechanized agricultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to mechanized agricultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of mechanized agriculture;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation of mechanized agriculture;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student knows the relationships between maintenance, repair, and reconditioning of agricultural vehicles and machinery. The student is expected to:

(A) demonstrate safe practices related to operation and repair of agricultural power and machinery;

(B) explain the basic principles of operation of agricultural power and machinery systems; and

(C) explain the use of lubricants and coolants.

(3) The student develops technical skills in agricultural power and machinery. The student is expected to:

(A) service and repair internal combustion engines;

(B) service and repair power train systems;

(C) service and maintain hydraulic systems;

(D) service and repair cooling, braking, and steering systems including wheels and tires;

(E) service and repair lubricating systems;

(F) service and maintain fuel and air systems;

(G) service and repair machinery and equipment electrical systems;

(H) service and maintain air conditioning systems;

(I) explain the use of electronic instrumentation, such as monitors, on-board computers, and sensors;

(J) service and repair agricultural machinery and equipment; and

(K) demonstrate work ethics, customer relations skills, and management competencies consistent with industry expectations.

§119.87. Agricultural Mechanics (One to Three Credits).

(a) General requirements. This course is recommended for students in Grades 11-12.

(b) Introduction. To be prepared for careers in mechanized agricultural systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to mechanized agricultural systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of mechanized agriculture;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation of mechanized agriculture;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student demonstrates technical knowledge and entry level workplace skills in the interrelated mechanized agricultural systems. The student is expected to:

(A) identify and select agricultural power systems and equipment;

(B) diagnose power system conditions;

(C) service and repair small gasoline engines;

(D) explain the operation of and services electrical, air conditioning, cooling, fuel, air, clutch, tires, wheels, and brake systems and power units; and

(E) set up, adjust, operate, and maintain agricultural machinery and equipment.

(3) The student demonstrates mechanized agriculture repair skills. The student is expected to:

(A) explain the operation of electric and oxy-fuel welding and cutting processes and performs procedures; and

(B) perform soldering and cold metal skills and tool maintenance.

(4) The student demonstrates principles and practices relating to agricultural structures. The student is expected to:

(A) identify, plan, and construct agricultural structures;

(B) demonstrate the use of concrete and masonry in agricultural construction;

(C) perform electrical wiring skills; and

(D) select and maintain electrical motors and controls for agricultural applications.

(5) The student demonstrates skills related to water management. The student is expected to:

(A) plan, establish, and maintain water management and irrigation systems; and

(B) perform skills in land measuring and leveling.

§119.88. Animal Production (One to Three Credits).

(a) General requirements. This course is recommended for students in Grades 11-12.

(b) Introduction. To be prepared for careers in food and fiber production systems, students need to attain academic skills and knowledge, to acquire knowledge and skills related to food and fiber production systems and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of food and fiber production;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in food and fiber production;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student demonstrates technical skills relating to the interrelated human, scientific, and technological dimensions of animal production and management. The student is expected to:

(A) assess the importance of the U.S. impact on world commodity markets;

(B) apply the principles of animal breeding and nutrition in predicting the impact of current advances in genetics; and

(C) examine the interrelationship of plants and animals.

(3) The student performs technical skills related to livestock production. The student is expected to:

(A) gather performance data;

(B) perform surgical skills;

(C) practice proper animal restraint techniques;

(D) demonstrate identification techniques; and

(E) perform management techniques.

(4) The student knows the factors determining price. The student is expected to:

(A) understand the relationship between commodity markets;

(B) formulate rations based on least-cost factors; and

(C) design and conduct experiments to support known principles of genetics and feed efficiency.

(5) The student plans for changes in business operation. The student is expected to:

(A) design, conduct, and complete research to solve self-identified problems; and

(B) use charts/tables/graphs to prepare written summaries of results and data obtained in a laboratory activity and an individual scientific research project.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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**Subchapter F. Work-based Learning, High School
19 TAC §§119.101, 119.102**

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§119.101. Implementation of Texas Essential Knowledge and Skills for Agricultural Science and Technology Education, Work-based Learning.

The provisions of Chapter 119, Subchapters B-F, shall supersede §75.82 of this title (relating to Agricultural Science and Technology) beginning September 1, 1998.

§119.102. Work-based Learning (One to Three Credits).

(a) General requirements. This course is recommended for students in Grades 11-12. Instruction may be delivered through arrangements such as cooperative education, preceptorships, mentoring, and job shadowing. It is recommended that workplace competencies be developed jointly by the teacher and the training sponsor.

(b) Introduction. To be prepared for careers in the broad field of agriculture/agribusiness, students need to attain academic skills and knowledge, to acquire knowledge and skills related to agriculture/agribusiness and the workplace, and to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings.

(c) Knowledge and skills.

(1) The student learns the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify career development and entrepreneurship opportunities in the field of agriculture/agribusiness;

(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in agriculture/agribusiness;

(C) demonstrate knowledge of personal and occupational safety practices in the workplace;

(D) identify employers' expectations, appropriate work habits, and good citizenship skills; and

(E) plan and manage supervised agricultural experience programs.

(2) The student demonstrates skills in verbal and non-verbal communication. The student is expected to:

(A) demonstrate basic writing skills;

(B) demonstrate telephone courtesy; and

(C) demonstrate the ability to give instructions and follow directions.

(3) The student practices productivity skills. The student is expected to:

(A) apply techniques of time management;

(B) define employer/employee relations;

(C) model appropriate dress, hygiene, and demeanor;

and

(D) apply priorities to tasks and deadlines.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Chapter 120. Texas Essential Knowledge and Skills for Business Education

The Texas Education Agency (TEA) adopts new §§120.1-120.5, 120.21-120.27, 120.41-120.49, 120.61- 120.66, 120.81, and 120.82, concerning business education. Sections 120.1, 120.2, 120.21-120.27, 120.41-120.49, 120.61-120.66, 120.81, and 120.82 are adopted with changes to the proposed text as published in the February 28, 1997, issue of the *Texas Register* (22 TexReg 2091). Sections 120.3-120.5 are being adopted without changes to the proposed text and will not be republished. The new sections establish the essential knowledge and skills for business education that include 34 courses plus 10 additional experimental courses that were synthesized and combined into 24 courses. The new sections are necessary to ensure that students throughout the state have access to the enrichment curricula. The provisions of these sections shall supersede §75.49 and §75.70 of this title (relating to Business Education) and §75.87 of this title (relating to Office Education) beginning September 1, 1998.

The Texas Education Code organizes the required curriculum into two types: the foundation curriculum and the enrichment curriculum. As specified in legislation, the essential knowledge and skills of the enrichment curriculum serve as guidelines to school districts in providing instruction. In doing so, some districts may incur costs for professional development and equipment. These potential costs cannot be estimated.

Members of the public expressed concern about adoption of a certificate of initial mastery. Neither the Texas essential knowledge and skills (TEKS) nor any other rule contains reference to, promotes, or establishes a certificate of initial mastery.

The following changes have been made since the sections were proposed.

Numerous editorial changes were made throughout the sections for clarification and simplification.

Since filing of the proposed sections, legal counsel has advised that since the sections serve as guidelines for instruction, language containing or implying mandates on school districts should be stricken or replaced with more permissive language where necessary. The term "shall" that appeared in statements regarding the date of implementation of the provisions for each

subchapter and in statements specifying the amount of credit to be awarded for successful completion of a course was replaced with more permissive language.

The term "capstone" in career and technology education courses has been replaced with the term "independent study" to clarify language. The career and technology education courses consist of an in-depth study of a business/industry that is of particular interest to a student.

Several individuals who testified at the public hearing held on March 4, 1997, stated that the TEKS for career and technology education contain references to the skills and competencies identified by the Secretary's Commission on Achieving Necessary Skills (SCANS) and thus reflect federal influence. TEA staff has carefully reviewed the TEKS for evidence of SCANS skills and competencies. The sections being adopted do not contain specific references to SCANS; however, the sections do contain skills and competencies that are among those recommended by the commission. The curriculum writing teams, members of the State Board of Education (SBOE) Review Committee, and others who had suggested strengthening the TEKS drafts expressed a strong belief that some skills and competencies identified by the SCANS commission are an essential part of an effective curriculum.

In subsection (c)(10) of §120.2 (relating to Introduction to Business Support Systems) and §120.24 (relating to Business Support Systems (One-Half to One Credit)), language has been changed to read "the student develops and refines skills for success in the workplace" to further clarify the knowledge and skill.

In §120.27 (relating to Recordkeeping (One-Half to One Credit)), language has been changed in subsection (a) to read "this course is recommended for students in Grades 9-10." This change corrects an inadvertent error.

In subsection (c)(2)(F) of §120.47 (relating to Business Ownership (One-Half Credit)), language has been changed to read "identify resources for life-long learning opportunities" to further clarify the student expectation.

The following comments have been received regarding adoption of the new sections. The comments are organized by subchapter and section.

Subchapter A. Middle School.

§120.4. Introduction to Keyboarding.

Issue: required courses for middle grades.

Comment. An individual representing the Texas Business Education Association (TBEA) recommended a required course in keyboarding in the middle school or in Grade 9. Keyboarding is an important lifetime skill that is key to communication in the information age and in the effective use of the computer.

Agency Response. A course in keyboarding is not part of the SBOE's high school graduation requirements.

Subchapter B. Exploratory, High School.

Issue: addition of introduction to operating systems.

Comment. An individual commented that a gap exists in the proposed business education curriculum regarding an operating systems course. The addition of introduction to operating systems would teach students how to control computers.

Agency Response. Knowledge and skills relating to operating systems are in the following three courses: Business Computer Information Systems I, Business Computer Information Systems II, and Business Computer Programming. This content may be expanded should the district desire more focus on operating systems.

§120.23. Business Computer Information Systems I (One-Half to One Credit).

Issue: performance impact of on-line systems.

Comment. Clear Creek Independent School District (ISD) commented that a performance description needs to be added to address student analysis of performance impacts of various types of on-line systems such as the ability to determine which networking protocol is faster/appropriate for various situations.

Agency Response. This standard is addressed in §120.23(c)(2) relating to the functions of various types of technology and hardware and software most appropriate for specific tasks and in §120.23(c)(9) relating to describing factors influencing the selection of a networking system. It is reinforced in §120.48(c)(3) relating to comparing advantages and disadvantages of networking, common networking protocols and functions, creating hierarchical structures, and distinguishing between common and special types of cabling.

§120.27. Recordkeeping (One-Half to One Credit).

Issue: grade level for recordkeeping.

Comment. An individual representing TBEA commented positively regarding 19 TAC Chapter 120. The association recommends Recordkeeping as a course more appropriate for Grades 9-10 than 9-12.

Agency Response. The TEA agrees with the comment and the recommended change has been made.

Subchapter C. Technical, High School.

§120.42. Accounting I (One-Half to One Credit).

Issue: computer use.

Comment. Clear Creek ISD commented that in the accounting courses, the performance descriptions should include more specific references to the use of computers to accomplish the performance results.

Agency Response. In general business classes, computer use is indicated where necessary to the topic, but for the most part, that decision is left to the school district and the teacher. Computer use is included in the accounting classes, especially Accounting II. In Accounting I, however, the focus is on learning the accounting cycle theory with pen and paper for the first semester, and then at the teacher's discretion as to the amount of computer use for the second.

§120.48. Telecommunications and Networking (One-Half to One Credit).

Issue: hands-on network set-up experience.

Comment. Clear Creek ISD commented that a performance description needs to be added addressing actual hands-on network set-up experience to include physical connections as well as software connections.

Agency Response. The availability of network components in individual districts may vary. Hands-on experience is not included to allow district flexibility. Network set-up is addressed in §120.48(c)(3) and (4).

Subchapter D. Comprehensive or Work Based, High School.

§120.62. Accounting II (One-Half to Three Credits).

Issue: computer use.

Comment. Clear Creek ISD commented that in the accounting courses the performance descriptions should include more specific references to the use of computers to accomplish the performance results.

Agency Response. In general business classes, computer use is indicated where necessary to the topic, but for the most part, that decision is left to the school district and the teacher. Computer use is included in the accounting classes, especially Accounting II.

§120.63. Administrative Procedures (One to Three Credits).

Issue: elimination of a course.

Comment. Clear Creek ISD commented that the course, Administrative Procedures, could be eliminated based on it containing mostly material that is already covered in at least one other course. The little bit of material that is unique to this course could be incorporated in one of the other courses.

Agency Response. This course is an upper-level course that serves two purposes and can be taught in two instructional settings—laboratory or work based. First, the course provides instruction for support personnel and, optionally, specialized instruction in medical and legal procedures. The course also brings together all the knowledge and skills from previous introductory courses. Second, the course serves as the vehicle for the work-based component.

§120.64. Business Computer Information Systems II (One-Half to Three Credits).

Issue: document storage and retrieval issues and techniques.

Comment. Clear Creek ISD commented that in the Business Computer Information Systems II course, a topic should be added addressing document storage and retrieval issues and techniques.

Agency Response. The issues of storage and retrieval are covered in §120.64(c)(5) relating to the integrity and confidentiality of information and in §120.64(c)(14) relating to demonstrating procedures for maintaining the security of computerized information. The techniques of storage and retrieval are introductory concepts and are taught in earlier courses such as Computer Literacy in Grades 7-8. These concepts are also covered in §120.23(c)(5) relating to procedures of locating, sorting, and organizing data; retrieving data; and exporting and importing data. Section 120.64 also includes the concepts as stated in subsection (c)(13) relating to importing, exporting, and merging data stored in different formats.

Subchapter E. Research Based, High School.

§120.82. Business Education Independent Study (One-Half to One Credit).

Issue: more specific performance details added to the capstone project course.

Comment. Clear Creek ISD commented that more specific performance details need to be added to §120.82, including specifying the use of technology to analyze information and present solutions.

Agency Response. The course, which has been renamed Business Education Independent Study, allows broad flexibility for each student to pursue his/her specific interests.

General Comments.

Issue: redundancy in courses.

Comment. Clear Creek ISD commented that the document more than meets the expectations but there is a lot of redundancy between several courses.

Agency Response. The comment was made after reviewing an early draft. The TEKS for business education reduced not only the number of courses but also the number of knowledge and skills. Some redundancy, however, is intentional based on schools not offering, nor students taking, all of the courses in business education.

Issue: high school courses that would be beneficial at middle school.

Comment. Clear Creek ISD commented that some of the courses designated for Grades 9-12 would be beneficial at the middle grades, specifically Introduction to Business.

Agency Response. As stated in 19 TAC §74.26(b) of this title (relating to Award of Credit), districts may offer any high school course in earlier grade levels. A course may be considered completed and credit may be awarded if the student demonstrated achievement by meeting the standard requirements of the course, including demonstrated proficiency in the subject matter, regardless of the time the student has received instruction in the course or the grade level at which proficiency was attained. The academic achievement record shall reflect that students have satisfactorily completed courses at earlier grade levels than Grades 9-12 and have been awarded state graduation credits.

Issue: prepare students for change.

Comment. Clear Creek ISD commented that it is preferable to better prepare students to function and learn in an ever-changing world than to prepare them for what we think will be the future.

Agency Response. The TEA agrees with the comment. It was not the intent to predict the future but rather to focus the curriculum on teaching problem-solving and decision-making competencies. Students should be provided opportunities to explore various means of achieving a goal or solving a problem. Teaching students to use the higher-level thinking skills is teaching them to adapt to change.

Issue: funding to accommodate student performance with computers.

Comment. Clear Creek ISD commented that current and sometimes highly sophisticated computer systems are implied in the curriculum. The district was concerned that most school districts do not have such computer systems in place to accommodate the expected student performance.

Agency Response. As part of the enrichment curriculum, the TEKS for business education will serve only as guidelines for local district use.

Issue: qualified teachers for computer courses.

Comment. Clear Creek ISD commented with concerns relating to finding qualified teachers to teach the computer applications electives including database management systems, image management systems, spreadsheet applications, and telecommunications and networking.

Agency Response. Telecommunications and Networking and Business Image Management and Multimedia (by title) are courses that have been approved by the SBOE for filing as adopted with the Office of the Secretary of State. However, the concepts of database management and spreadsheet applications have been incorporated into other courses such as Business Computer Information Systems I, Business Computer Information Systems II, and Accounting II. Business education teachers are certified to teach all of these courses. Computer qualifications are determined by the district.

Issue: duplication of business education courses by technology applications.

Comment. Two individuals representing TBEA commented positively regarding the business education curriculum. However, the individuals maintain that several secondary courses in technology applications duplicate the content of the application courses already existing in business education and will dilute what schools are financially able to do in existing courses. The individuals object to the focus of technology applications courses on the tool instead of problem solving. In addition, there is no certification area established for these classes whereas business education teachers are certified.

Agency Response. No change is recommended. Offering courses in both content areas will allow districts flexibility in meeting students' needs. The State Board for Educator Certification will be responsible for developing assignment guidelines for all new courses.

Subchapter A. Middle School

19 TAC §§120.1–120.5

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§120.1. Implementation of Texas Essential Knowledge and Skills for Business Education, Middle School.

The provisions of Chapter 120, Subchapter A, shall supersede §75.49 of this title (relating to Business Education) beginning September 1, 1998.

§120.2. Introduction to Business Support Systems.

(a) General requirements. This course is recommended for students in Grades 7-8.

(b) Introduction. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce and/or postsecondary education. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economical, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students enhance reading, writing, computing, communications, and reasoning skills and apply them to the business environment.

(c) Knowledge and skills.

(1) The student performs payroll and banking procedures. The student is expected to:

- (A) compute gross pay;
- (B) compute employee-paid withholdings;
- (C) compute net pay;
- (D) determine methods of dissemination of payroll funds, for example, direct deposit, and mail;
- (E) reconcile a personal bank statement; and
- (F) prepare personal and commercial bank deposits.

(2) The student researches consumer and employee issues and discusses financial implications for the individual. The student is expected to:

- (A) prepare and maintain a personal budget;
- (B) identify rights and responsibilities of the consumer;
- (C) demonstrate purchasing decisions through comparative shopping;
- (D) identify methods of acquiring ownership of personal property;
- (E) identify cases of consumer protection laws for employees, for example, Texas Lemon Law, Child Labor Law, and Deceptive Trade Protection Act; and
- (F) identify agencies that protect employees.

(3) The student generates domestic and international travel plans. The student is expected to:

- (A) select appropriate options for lodging accommodations;
- (B) consider social and language differences, currency exchange, passport acquisition, time differences, and immunization requirements using appropriate technology for a trip to a foreign country; and

(C) compare operations, practices, and policies for various businesses to determine productivity levels.

(4) The student communicates effectively. The student is expected to:

(A) demonstrate basic writing skills through assigned tasks;

(B) demonstrate effective communication techniques when using the telephone in a business environment;

(C) demonstrate effective listening techniques;

(D) organize ideas logically and sequentially;

(E) interpret maps;

(F) exhibit initial personal contact skills;

(G) survey supplementary resources, for example, the telephone directory, dictionary, and newspapers;

(H) interpret nonverbal communication in various activities;

(I) provide instructions to perform a task; and

(J) deliver an effective business presentation.

(5) The student exchanges information via telecommunications software, for example, electronic mail, images, and on-line information services with appropriate supervision. The student is expected to:

(A) send and receive information via telecommunications technology; and

(B) model business ethics and correct etiquette when using telecommunications.

(6) The student identifies procedures involved in delivering information and products. The student is expected to:

(A) identify classes of mail and delivery services available; and

(B) compare costs of various delivery services.

(7) The student applies the proper keyboarding technique to input data. The student is expected to:

(A) demonstrate correct posture and position at the keyboard;

(B) demonstrate proper care and operation of equipment;

(C) demonstrate the correct touch-system techniques for operating alphabetic keys;

(D) demonstrate the correct touch-system techniques for operating numeric and symbol keys;

(E) demonstrate the correct touch-system techniques for operating the ten-key numeric pad; and

(F) demonstrate the correct use of the command and function keys.

(8) The student models employability skills for obtaining a position in a business. The student is expected to:

(A) identify employment opportunities;

(B) complete an application;

(C) demonstrate proper interview techniques; and

(D) identify documents needed when applying for employment, for example, the social security card, picture identification, and a birth certificate.

(9) The student exhibits effective human relations skills. The student is expected to:

(A) list professional qualities including positive attitude, loyalty, and diplomacy;

(B) maintain professionalism through neatness of work area and correctness of completed tasks;

(C) identify and demonstrate skills needed to maintain effective work relations;

(D) demonstrate a respect for individual differences; and

(E) exhibit tact in handling criticism, disagreement, or disappointment.

(10) The student develops and refines skills for success in the workplace. The student is expected to:

(A) demonstrate productive work habits and attitudes, for example, dependability and punctuality;

(B) prioritize work to fulfill responsibilities and meet deadlines;

(C) model appropriate dress for the work assignment; and

(D) complete a W-4 form.

(11) The student produces business documents using current and emerging technology. The student is expected to:

(A) produce business documents using word processing;

(B) correct and print a business document;

(C) produce a business report containing text and graphics;

(D) develop and maintain electronic and manual filing systems;

(E) establish and maintain document and information storage and retrieval systems;

(F) develop and maintain files of addresses and telephone numbers;

(G) perform office procedures by manual or electronic methods, for example, keeping a simple inventory; and

(H) demonstrate binding equipment to prepare booklets.

(12) The student applies desktop publishing technology. The student is expected to:

(A) identify technologies available for desktop publishing;

(B) identify customary standards and styles of desktop publishing;

(C) create desktop publications importing text and graphics; and

- (D) develop a project using desktop publishing.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Subchapter B. Exploratory, High School

19 TAC §§120.21-120.27

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§120.21. Implementation of Texas Essential Knowledge and Skills for Business Education, Exploratory, High School.

The provisions of Chapter 120, Subchapter B-E, shall supersede §75.70 of this title (relating to Business Education) and §75.87 of this title (relating to Office Education) beginning September 1, 1998.

§120.22. Business Communications (One-Half to One Credit).

(a) General requirements. The recommended prerequisite for this course is Keyboarding, one-half credit or equivalent, as described in §120.26(a) of this title (relating to Keyboarding (One-Half to One Credit)). This course is recommended for students in Grades 10-12.

(b) Introduction. Students recognize, evaluate, and prepare for a rapidly evolving global business environment that requires flexibility and adaptability. Students apply technical skills to address business applications of emerging technologies. Students enhance reading, writing, computing, communications, and reasoning skills and apply them to the business environment.

(c) Knowledge and skills.

(1) The student prepares for effective communication skills. The student is expected to:

- (A) organize ideas logically and sequentially;
- (B) locate and interpret written information;

(C) distinguish communicated fact from opinion by identifying key words; and

(D) interpret visual materials such as charts, graphs, pictures, and maps, and translate the information into textual form.

(2) The student employs appropriate research techniques to produce effective business communication. The student is expected to:

(A) incorporate information from printed copy and electronic resources and references;

(B) locate and paraphrase secondary sources;

(C) document secondary sources;

(D) design, conduct, and analyze the results of a survey;

(E) conduct interviews to obtain resource materials;

(F) research and develop a business project incorporating data imported from various sources; and

(G) develop and communicate a vision and mission statement for a company.

(3) The student exchanges information via telecommunications software, for example, electronic mail, images, and on-line information services with appropriate supervision. The student is expected to:

(A) send and receive information via telecommunications technology;

(B) evaluate which telecommunications methods are most appropriate to a given situation; and

(C) employ appropriate business ethics and correct etiquette when using telecommunications.

(4) The student illustrates proficiency in interpersonal communication. The student is expected to:

(A) develop business and professional vocabulary skills;

(B) deliver effective oral presentations;

(C) deliver an effective business presentation, for example, sales, reports, and proposals;

(D) demonstrate effective communication techniques when using the telephone;

(E) demonstrate the ability to listen by writing summaries of presentations and oral conversations;

(F) demonstrate active listening through oral feedback;

(G) follow oral and written directions;

(H) demonstrate the ability to give oral instructions for completing a simple task; and

(I) demonstrate proper business interviewing techniques in various situations, for example, one-on-one, group, and committee interviews.

(5) The student develops communication skills necessary to address a changing business environment. The student is expected to:

(A) describe the communication process;

(B) identify barriers to effective communication;

(C) assess the ethical and legal implications of messages;

(D) discern appropriate channels for transmitting messages;

(E) interpret nonverbal communication in various activities;

(F) illustrate the impact of nonverbal communication on the total communication process;

(G) identify ways to improve communication in organizations; and

(H) explain the types of communication problems that are possible when conducting business among cultures.

(6) The student produces business documents using current and emerging technology. The student is expected to:

(A) format business documents;

(B) demonstrate basic writing skills through assigned tasks;

(C) compose positive, negative, and persuasive messages;

(D) compose business letters and memos using the appropriate organizational strategies;

(E) produce a business report containing text and graphics;

(F) develop a business newsletter;

(G) prepare an employment portfolio, including letters of application, resumes, and related employment correspondence; and

(H) prepare a multimedia presentation.

§120.23. Business Computer Information Systems I (One-Half to One Credit).

(a) General requirements. The prerequisite for this course is Keyboarding, one-half credit or equivalent, as described in §120.26(a) of this title (relating to Keyboarding (One-Half to One Credit)). This course is recommended for students in Grades 9-10.

(b) Introduction. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce and/or postsecondary education. Students apply technical skills to address business applications of emerging technologies.

(c) Knowledge and skills.

(1) The student develops skills for successful transition to the workplace. The student is expected to:

(A) locate and interpret written information;

(B) incorporate supplementary resources and references;

(C) demonstrate active listening through oral and written feedback;

(D) demonstrate productive work habits and attitudes, for example, dependability and punctuality; and

(E) organize ideas logically and sequentially.

(2) The student selects appropriate technology to address business needs. The student is expected to:

(A) identify and explain the functions of various types of technology, hardware, and software used in business;

(B) explore functions of emerging technologies; and

(C) list available hardware and software most appropriate for specific tasks.

(3) The student applies word processing technology. The student is expected to:

(A) identify customary styles of business documents;

(B) improve the touch-system skill using the keyboard and keypad to input data;

(C) utilize hardware and software flexibility needed to produce documents to address different computer applications;

(D) demonstrate basic writing techniques;

(E) edit a variety of written documents; and

(F) produce business documents, including:

(i) business letters;

(ii) business reports, integrating charts, and graphics;

(iii) research papers;

(iv) statistical data tables;

(v) newsletters; and

(vi) resumes.

(4) The student applies spreadsheet technology. The student is expected to:

(A) perform correct mathematical processes, including:

(i) addition, subtraction, multiplication, and division;

(ii) percentages and decimals;

(iii) order of operations principle;

(iv) estimation; and

(v) prediction of patterns of data; and

(B) formulate and produce solutions to a variety of business problems, such as:

(i) budget, personal, and business;

(ii) payroll;

(iii) inventory;

(iv) invoices;

(v) balance sheets;

(vi) profit-loss statements;

(vii) income tax preparation;

(viii) charts and graphs; and

(ix) conversion of foreign currencies.

(5) The student applies database technology. The student is expected to:

(A) differentiate the nature and interrelationships of fields, records, and files in databases;

(B) perform data management procedures, including:

- (i) locate, sort, and organize data;
- (ii) search and query data;
- (iii) retrieve data; and
- (iv) export and import data; and

(C) produce and analyze business reports.

(6) The student exchanges information via telecommunications technology with appropriate supervision. The student is expected to:

(A) identify and describe the different components of the telecommunications industry;

(B) send and receive information using electronic methods, such as mail, image transfer, remote bulletin board access, access of on-line information services, and emerging technologies;

(C) evaluate telecommunications methods for specific business needs, including:

- (i) cost (locally, nationally, and internationally);
- (ii) convenience; and
- (iii) availability; and

(D) model acceptable telecommunications ethics and etiquette and follow guidelines and laws.

(7) The student applies desktop publishing technology. The student is expected to:

(A) identify technologies available for desktop publishing;

(B) identify customary standards and styles of desktop publishing;

(C) create desktop publications importing text and graphics; and

(D) create an instructional manual.

(8) The student applies presentation management technology. The student is expected to:

(A) identify the guidelines for using graphics, fonts, and special effects in presentations;

(B) analyze the effectiveness of multimedia presentations; and

(C) determine the appropriate technology to create and deliver an effective presentation.

(9) The student identifies the concepts of a computer network. The student is expected to:

(A) describe the components necessary to establish a network;

(B) describe the factors influencing the selection of a networking system; and

(C) compare the resources available on various types of networks.

(10) The student analyzes computer operating systems and emerging technologies. The student is expected to:

(A) describe various types of operating systems, environments, and utilities;

(B) compare the functions and features of different operating systems, environments, and utilities; and

(C) demonstrate operating system commands.

§120.24. Business Support Systems (One-Half to One Credit).

(a) General requirements. The recommended prerequisite for this course is Keyboarding, one-half credit or equivalent as described in §120.26(a) of this title (relating to Keyboarding (One-Half to One Credit)). This course is recommended for students in Grades 9-10.

(b) Introduction. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce and/or postsecondary education. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economical, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students enhance reading, writing, computing, communications, and reasoning skills and apply them to the business environment.

(c) Knowledge and skills.

(1) The student performs payroll and banking procedures. The student is expected to:

(A) compute gross pay;

(B) compute employee-paid withholdings;

(C) compute net pay;

(D) determine methods of dissemination of payroll funds, for example, direct deposit, and mail;

(E) reconcile a personal bank statement; and

(F) prepare personal and commercial bank deposits.

(2) The student researches consumer and employee issues and discusses financial implications for the individual. The student is expected to:

(A) prepare and maintain a personal budget;

(B) identify rights and responsibilities of the consumer;

(C) demonstrate purchasing decisions through comparative shopping;

(D) identify methods of acquiring ownership of personal property;

(E) identify cases of consumer protection laws for employees, for example, Texas Lemon Law, Child Labor Law, and Deceptive Trade Protection Act; and

(F) identify agencies that protect employees.

(3) The student generates domestic and international travel plans. The student is expected to:

(A) select appropriate options for lodging accommodations;

(B) plan a trip to a foreign country, considering social and language differences, currency exchange, passport acquisition, time differences, and immunization requirements using appropriate technology; and

(C) compare different business operations and practices to determine productivity levels.

(4) The student communicates effectively. The student is expected to:

(A) demonstrate basic writing skills through assigned tasks;

(B) demonstrate effective communication techniques when using the telephone in a business environment;

(C) demonstrate effective listening techniques;

(D) organize ideas logically and sequentially;

(E) interpret maps;

(F) exhibit initial personal contact skills;

(G) survey supplementary resources, for example, the telephone directory, dictionary, and newspapers;

(H) interpret nonverbal communication in various activities;

(I) provide instructions to perform a task; and

(J) deliver an effective business presentation.

(5) The student exchanges information via telecommunications software, for example, electronic mail, images, and on-line information services. The student is expected to:

(A) send and receive information via telecommunications technology; and

(B) model business ethics and correct etiquette when using telecommunications.

(6) The student identifies procedures involved in delivering information and products. The student is expected to:

(A) identify classes of mail and delivery services available; and

(B) compare cost of various delivery services.

(7) The student applies the proper keyboarding technique to input data. The student is expected to:

(A) demonstrate correct posture and position at the keyboard;

(B) demonstrate proper care and operation of equipment;

(C) demonstrate the correct touch-system techniques for operating alphabetic keys;

(D) demonstrate the correct touch-system techniques for operating numeric and symbol keys;

(E) demonstrate the correct touch-system techniques for operating the ten-key numeric pad; and

(F) demonstrate the correct use of the command and function keys.

(8) The student exhibits employability skills for obtaining a position in a business. The student is expected to:

(A) identify employment opportunities;

(B) complete an application;

(C) demonstrate proper interview techniques; and

(D) identify documents needed when applying for employment, for example, the social security card, picture identification, and a birth certificate.

(9) The student applies principles of effective human relations skills. The student is expected to:

(A) list professional qualities including positive attitude, loyalty, and diplomacy;

(B) demonstrate professionalism through neatness of work area and correctness of completed tasks;

(C) identify and demonstrate skills needed to maintain effective work relations with colleagues;

(D) demonstrate a respect for individual differences; and

(E) exhibit tact in handling criticism, disagreement, or disappointment.

(10) The student develops and refines skills for success in the workplace. The student is expected to:

(A) demonstrate productive work habits and for example, dependability, and punctuality;

(B) prioritize work to fulfill responsibilities and meet deadlines; and

(D) complete a W-4 form.

(11) The student produces business documents using current and emerging technology. The student is expected to:

(A) format documents using word processing;

(B) correct and print a business document.

- (A) identify technologies available for desktop publishing;
- (B) identify customary standards and styles of desktop publishing;
- (C) create desktop publications importing text and graphics; and
- (D) produce a project using desktop publishing.

§120.25. Introduction To Business (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 9-10.

(b) Introduction. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce and/or postsecondary education. Students develop a foundation in the economical, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students enhance reading, writing, computing, communications, and reasoning skills and apply them to the business environment. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions.

(c) Knowledge and skills.

(1) The student explains the economic process and relates the process to the development of an economic system. The student is expected to:

- (A) determine the role of wants and needs;
- (B) define economic roles;
- (C) differentiate among the types of economic resources; and
- (D) identify factors of production and distribution.

(2) The student differentiates between the types of economic systems with emphasis on the private enterprise system and the United States economy. The student is expected to:

- (A) compare the types of economic systems;
- (B) identify business cycles;
- (C) explain the characteristics of the private enterprise system;
- (D) summarize how economic decisions are made; and

(E) relate the historical basis for the four types of economy the United States has experienced.

(3) The student researches consumer issues and determines financial implications for the individual. The student is expected to:

- (A) prepare and maintain a personal budget;
- (B) interpret and explain the rights and responsibilities of the consumer;

(C) research and present major financial issues for the individual, for example, money management, banking system and services, saving and investing, credit, taxes, and paychecks; and

(D) demonstrate understanding of buying decisions for housing, food, transportation, medical and health, and different types of insurance.

(4) The student analyzes employment characteristics necessary for the workplace. The student is expected to:

(A) assess the job market and employment and entrepreneurial opportunities;

(B) compare a variety of workplaces; and

(C) analyze the characteristics of the multicultural workplace.

(5) The student analyzes career opportunities and formulates a career plan. The student is expected to:

(A) analyze individual goals and values;

(B) determine individual talents, abilities, and skills; and

(C) develop an individual career plan.

(6) The student engages in the employment process. The student is expected to:

(A) complete employment application forms; and

(B) participate in mock job interviews.

(7) The student describes different types of technology and explains role of technology in business settings. The student is expected to:

(A) describe types of technology and their importance to businesses;

(B) outline the role of computers in business; and

(C) research future trends in the workplace relating to technology.

(8) The student defines ethics in business. The student is expected to:

(A) distinguish between ethical and unethical business practices;

(B) contrast ethical and legal choices; and

(C) relate the ethical decision-making process to business situations.

(9) The student describes the characteristics of business. The student is expected to:

(A) identify the types of business;

(B) compare the different forms of ownership;

(C) describe the activities performed by business; and

(D) explain the organizational structure and functions of business.

(10) The student relates the impact of international business on the United States economy. The student is expected to:

- (A) compare domestic and world trade;
- (B) explain the impact of imports and exports on the United States economy; and
- (C) explain trade and exchange rates.

(11) The student identifies the role and impact of government, the legal system, and organized labor in business. The student is expected to:

- (A) differentiate among the roles of government in business;
- (B) describe types of activities performed by governments in business; and
- (C) explains the role of the legal system in business.

§120.26. Keyboarding (One-Half to One Credit).

(a) General requirements. Successful completion of a district-level proficiency test can be accepted as the equivalent for a prerequisite of one-half credit in Keyboarding. This course is recommended for students in Grades 9-10.

(b) Introduction. Students apply technical skills to address business applications of emerging technologies. Students enhance reading, writing, computing, communications, and reasoning skills and apply them to the business environment.

(c) Knowledge and skills.

(1) The student applies the proper keyboarding technique to input data when using the computer or typewriter keyboard. The student is expected to:

- (A) demonstrate correct posture and position at the keyboard;
- (B) demonstrate proper care and operation of equipment used;
- (C) demonstrate the correct touch-system techniques for operating alphabetic keys;
- (D) demonstrate the correct touch-system techniques for operating numeric and symbol keys;
- (E) demonstrate the correct touch-system techniques for operating the ten-key numeric pad; and
- (F) demonstrate the correct use of the command and function keys.

(2) The student formats and prints documents, for example, personal and business letters, short reports, outlines, and compositions. The student is expected to:

- (A) demonstrate the ability to work from printed, rough-draft, statistical, handwritten, and unarranged material;
- (B) demonstrate the ability to compose at the keyboard;
- (C) demonstrate the ability to proofread;
- (D) identify the parts of a personal and business letter;
- (E) format personal and business letters and envelopes;

(F) format all pages of a report, including a title page, a reference page, and bibliography;

(G) format an outline; and

(H) demonstrate mastery of basic grammar, including use of punctuation marks, keying of numbers and symbols, and capitalization when composing.

(3) The student applies correct techniques for the touch-system of operating the keyboard to develop speed and accuracy. The student is expected to:

- (A) demonstrate improvement in speed and accuracy;
- (B) demonstrate ability to proofread;
- (C) demonstrate ability to use the backspace key and correct errors;
- (D) apply speed and accuracy in production of documents; and
- (E) demonstrate mastery of basic grammar, including use of punctuation marks and capitalization.

§120.27. Recordkeeping (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 9-10.

(b) Introduction. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce and/or postsecondary education. Students analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace. Students develop a foundation in the economical, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students enhance reading, writing, computing, communications, and reasoning skills and apply them to the business environment.

(c) Knowledge and skills.

(1) The student identifies the rights and responsibilities of consumer credit. The student is expected to:

- (A) develop a record keeping vocabulary;
- (B) project the effect of poor credit on a consumer's credit worthiness by examining credit reports;
- (C) list and explain the qualifications and procedures needed to obtain credit;
- (D) research and present cases of consumer protection laws, for example, Texas Lemon Law and Deceptive Trade Practices Act;
- (E) distinguish between regular and revolving credit accounts;
- (F) identify problems involving personal use of credit cards;
- (G) consider an annual percentage rate (APR) table and compute the APR on revolving charge accounts;
- (H) compare costs of various forms of credit;

(I) determine the bank that offers the best credit card contract;

(J) interpret payment plans; and

(K) evaluate the effect of credit scoring on determining the availability of credit.

(2) The student demonstrates an understanding of personal financial management. The student is expected to:

(A) explain the importance of providing accurate information and calculations;

(B) calculate gross and net pay;

(C) plan and maintain a budget;

(D) simulate opening and maintaining various types of bank account;

(E) reconcile bank statements;

(F) compare the advantages and disadvantages of different types of banking services;

(G) examine investment growth by developing a personal investment plan;

(H) prepare an individual income tax return; and

(I) complete an order for merchandise for personal use.

(3) The student applies mathematical processes to solve business problems. The student is expected to:

(A) apply the order of operations principle when solving business problems;

(B) calculate answers to problems using addition, subtraction, division, multiplication, percentages, and decimals;

(C) demonstrate ability to operate numeric key pad by touch;

(D) calculate conversions from the United States to the metric system of measurement;

(E) calculate currency conversion;

(F) calculate pay using time cards;

(G) prepare local, state, and federal tax reports;

(H) compare physical and perpetual inventories;

(I) prepare a customer's statement of account;

(J) verify invoices and statements;

(K) compute and verify extensions on purchase orders;

(L) calculate trade, chain, and quantity discounts;

(M) compute cash discounts and the amount due on purchase orders after adjustments for transportation charges, discounts, and returned merchandise;

(N) calculate payment dates;

(O) compute the percentage of bad debts to sales;

(P) compute the amount of credit card discounts;

(Q) maintain accounts receivable; and

(R) maintain accounts payable.

(4) The student researches the components of productivity. The student is expected to:

(A) develop time management skills;

(B) enhance time management skills by using technology;

(C) evaluate the effects of errors versus accuracy on productivity; and

(D) evaluate the effects of employee absenteeism on business productivity.

(5) The student explains the concepts of integrity and confidentiality as related to the business environment. The student is expected to:

(A) define business ethics;

(B) define honest and dishonest business practices;

(C) analyze the effects of unethical practices on business;

(D) analyze the effects of unethical practices on consumers; and

(E) identify ethical considerations resulting from technological advances.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloutd

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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For further information, please call: (512) 463-9701



Subchapter C. Technical, High School

19 TAC §§120.41–120.49

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§120.41. Implementation of Texas Essential Knowledge and Skills for Business Education, Technical, High School.

The provisions of Chapter 120, Subchapters B-E, shall supersede §75.70 of this title (relating to Business Education) and §75.87 of this title (relating to Office Education) beginning September 1, 1998.

§120.42. Accounting I (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 10-12.

(b) Introduction. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and

in society and to make a successful transition to the workforce and/or postsecondary education. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economical, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs.

(c) Knowledge and skills.

(1) The student demonstrates an understanding of the accounting cycle for a service business. The student is expected to:

- (A) describe the purpose of accounting;
- (B) apply basic accounting concepts and terminology;
- (C) demonstrate the effects of transactions on the accounting equation, for example, T accounts;
- (D) prepare a chart of accounts;
- (E) apply information from source documents;
- (F) post general journal entries;
- (G) prepare a trial balance;
- (H) calculate and record end-of-period adjustments;
- (I) update accounts through adjusting and closing entries;
- (J) prepare a post-closing trial balance; and
- (K) prepare financial statements.

(2) The student demonstrates an understanding of the accounting cycle for an inventory-based or a merchandising business. The student is expected to:

- (A) contrast the characteristics of a service and a merchandising business;
- (B) analyze transactions relating to purchase and sale of merchandise;
- (C) record transactions in special journals;
- (D) prepare schedules for subsidiary ledgers;
- (E) generate trial balances and end-of-period adjustments; and
- (F) prepare financial statements.

(3) The student performs payroll and banking procedures. The student is expected to:

- (A) compute gross pay;
- (B) compute net pay;
- (C) compute employee-paid withholdings;
- (D) compute and complete payroll tax expense forms;
- (E) compute salary expenses;
- (F) prepare payroll registers;
- (G) record payroll transactions in journals;
- (H) complete payroll tax forms;

(I) determine methods of dissemination of payroll funds, for example, direct deposit, and mail;

(J) reconcile a bank statement; and

(K) prepare commercial bank deposits.

(4) The student performs specialized accounting procedures. The student is expected to:

- (A) calculate and record depreciation of plant assets;
- (B) prepare depreciation schedules;
- (C) determine and record uncollectible accounts receivable;
- (D) record inventories;
- (E) calculate and record notes payable and notes receivable;
- (F) open and replenish a petty cash fund and journalizes transactions;
- (G) calculate interest due and payable and journalizes transactions involving notes payable and receivable; and
- (H) calculate bad debts expense and journalizes transactions involving uncollectible accounts.

(5) The student recognizes the different forms of business organizations, for example, proprietorship, partnership, corporation, and non-profit organizations. The student is expected to:

- (A) compare the various forms of business organizations;
- (B) list advantages and disadvantages of each form of business organization; and
- (C) identify the various accounting functions involved with each form of business organization.

(6) The student identifies career opportunities in the accounting field. The student is expected to:

- (A) describe the purpose of accounting; and
- (B) interview members of the accounting field to investigate entry-level job requirements, career tracks for the profession, and projected trends for the future.

(7) The student practices productivity skills as they apply to accounting. The student is expected to:

- (A) follow oral and written instructions;
- (B) develop time management skills by setting priorities for completing work as scheduled;
- (C) make decisions using appropriate accounting concepts;
- (D) explain the concepts of integrity and confidentiality as related to the accounting profession;
- (E) perform accounting procedures using manual and automated methods;
- (F) complete the accounting cycle within an assigned time frame; and
- (G) demonstrate use of the numeric keypad by touch.

§120.43. Banking and Financial Systems (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 11-12.

(b) Introduction. Students develop a foundation in the economical, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions.

(c) Knowledge and skills.

(1) The student evaluates the role of money in the modern economy. The student is expected to:

(A) outline the history of money and banking in the United States economy;

(B) explain the composition of the money supply;

(C) compare current interest rates with the quantity of money required and available in money markets; and

(D) explain the operation of the Federal Reserve Bank and its role in the economy.

(2) The student identifies the principal functions of financial institutions. The student is expected to:

(A) compare the functions of financial institutions (banks, savings and loans, credit unions);

(B) analyze the process of credit creation and its impact on a single financial institution and on the banking system as a whole;

(C) outline different types of credit and the cost of credit; and

(D) critique the methods of credit investigation and the concepts related to the use of credit analysis.

(3) The student utilizes the services of banking and financial institutions for loans, savings, and investing. The student is expected to:

(A) compare various types of checking accounts and attendant banking services;

(B) explain electronic banking;

(C) calculate the variety of options (maturities, interest) on consumer purchases; and

(D) calculate interest and account balances for savings accounts and certificates of deposit.

(4) The student compares business financing opportunities with conventional or government options.

(A) compare borrowing through conventional bank or non-bank lenders with government programs, for example, Small Business Administration, Farmers Home Administration;

(B) contrast the business and consumer implications of the Community Reinvestment Act (CRA);

(C) outline the costs and benefits of factoring as a source of cash flow; and

(D) describe the functions of The World Bank and The International Finance Corporation.

(5) The student assesses the differences in mortgage transactions. The student is expected to:

(A) compare mortgage options available through lending institutions; and

(B) identify eligibility requirements for government secured mortgage options, for example, Federal Housing Authority, Federal National Mortgage Association, Veterans Administration.

(6) The student identifies the economic theories and financial forces that influence international business. The student is expected to:

(A) read and interpret foreign exchange quotations;

(B) describe factors that impact foreign exchange rates; and

(C) describe types of payment methods on international transactions, for example, United States Export Import Bank, Overseas Private Investment Corporation, Small Business Administration.

§120.44. Business Image Management and Multimedia (One-Half to One Credit).

(a) General requirements. The recommended prerequisite for this course is Keyboarding, one-half credit or equivalent, as described in §120.26(a) of this title (relating to Keyboarding (One-Half to One Credit)). This course is recommended for students in Grades 10-12.

(b) Introduction. Students recognize, evaluate, and prepare for a rapidly evolving global business environment that requires flexibility and adaptability. Students apply technical skills to address business applications of emerging technologies. Students enhance reading, writing, computing, communications, and reasoning skills and apply them to the business environment.

(c) Knowledge and skills.

(1) The student demonstrates proficiency in developing professional oral and visual communication skills. The student is expected to:

(A) translate and interpret audio and visual materials such as charts, graphs, pictures, and maps for use in production development; and

(B) design and make audio-visual business presentations, including:

(i) sales;

(ii) reports;

(iii) proposals; and

(iv) demonstrations.

(2) The student researches and develops a presentation addressing a changing business environment. The student is expected to:

(A) research the impact of technology on business;

(B) research the effects of a changing business environment; and

(C) develop a factual multimedia presentation based on research data.

(3) The student demonstrates use of a presentation system. The student is expected to:

(A) identify the components and types of multimedia presentations;

(B) analyze the effectiveness of layout, color, special effects, and media objects in text documents and multimedia presentations;

(C) import graphics, sound, and video objects into text documents and presentations, using CD-ROM, World Wide Web, and other on-line services with appropriate supervision;

(D) apply the appropriate medium for documents and presentations;

(E) implement workplace standard technology for multimedia presentations;

(F) integrate media devices into document and presentation preparation; and

(G) research a topic and produces a multimedia presentation.

(4) The student demonstrates image management procedures. The student is expected to:

(A) identify and demonstrate image management procedures;

(B) analyze the cost and availability of integrating image management technology; and

(C) manipulate text, graphics, and other electronic images for business document production.

(5) The student applies a publishing system. The student is expected to:

(A) adhere to workplace standard technology for publishing; and

(B) produce documents using advanced standards and styles of publishing, including:

(i) watermarks;

(ii) mastheads;

(iii) perspectives;

(iv) special effects; and

(v) transformation; and

(C) demonstrate the use of various electronic publishing systems, including:

(i) web publishing; and

(ii) desktop publishing.

§120.45. Business Law (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 11-12.

(b) Introduction. Students analyze the social responsibility of business and industry regarding the significant issues relating to

the environment, ethics, health, safety, and diversity in society and in the workplace. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economical, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions.

(c) Knowledge and skills.

(1) The student identifies the rights and responsibilities of consumers. The student is expected to:

(A) research and present cases of appropriate consumer protection laws and agencies and identify given consumer transactions;

(B) compare personal with business bankruptcy laws;

(C) identify methods of conducting transactions in spite of an incapacity or death, via a power of attorney or will;

(D) differentiate between personal and real property;

(E) contact the office of the district court administrator to locate local dispute resolution centers and defines the scope of their jurisdiction; and

(F) make an oral presentation on an actual conflict resolution proceeding.

(2) The student demonstrates an understanding of personal financial management. The student is expected to:

(A) explain the elements of legal contracts and negotiable instruments, for example, stocks, bonds, checks, and bills of sale;

(B) cite methods of acquiring ownership of personal property;

(C) distinguish between liens, licenses, and easements;

(D) examine the forms of co-ownership of real property;

(E) describes legal aspects of a mortgage; and

(F) outline the process of transferring ownership of real property in community property and non-community property states.

(3) The student explains ethical concepts of integrity and confidentiality as related to the business environment. The student is expected to:

(A) contrast honest or dishonest with legal or illegal business practices;

(B) analyze the effects of unethical and illegal practices on a business and on consumers;

(C) investigate laws and regulations resulting from unethical practices;

(D) determine lawyer's obligation of confidentiality; and

(E) research the ethical implications of legislation resulting from the use of current technology and develop procedural guidelines for implementing appropriate legislation.

(4) The student identifies employee rights and protections provided by law. The student is expected to:

(A) identify legislation and agencies that regulate an employer's obligation to supply a safe and accessible workplace, for example, Occupational Safety and Health Agency, the Environmental Protection Agency, and the Americans with Disabilities Act;

(B) interview workers and employees affected by this legislation;

(C) present findings on a governmental agency audit, for example, compliance with regulations of wage and hour, safety and health, and equal employment;

(D) identify an employee's right to work by examining current legislation including Americans with Disabilities Act, affirmative action, and discrimination laws;

(E) identify current legislation that insures employee safety in the workplace;

(F) investigate an employee's right to organize and participate in a union, based on current legislation;

(G) identify an employee's right to continued employment by examining current legislation, for example, unlawful termination, sexual harassment, family leave, Americans with Disabilities Act, and employee privacy;

(H) outline the evolution of the Texas Worker's Compensation Program and state and federal unemployment compensation programs;

(I) relate the purpose, history, and work of the Texas Workforce Commission; and

(J) identify employer and employee rights and protections when working in another country.

(5) The student explores the options for the organization and operation of a business. The student is expected to:

(A) contrast the legal documentation required in forming different types of business organizations (proprietorship, partnership, corporation) and describes the significance of each type;

(B) identify new and hybrid business entities including sub-chapter S corporations, limited liability partnerships, and limited liability corporations;

(C) identify the duties and responsibilities for those interested in each type of business organization;

(D) compare bankruptcy and dissolution options for different types of business organizations; and

(E) identify the legal ramifications of operating different types of businesses internationally.

(6) The student researches the impact of the legal system on business. The student is expected to:

(A) utilize current technology in developing and managing legal documents;

(B) compare and contrast common law, statutory law, and agency regulations;

(C) relate ethical and social attitudes to changes that occur in the law;

(D) specify the steps in a civil and criminal lawsuit;

(E) distinguish between the laws that apply to retail and commercial sales, for example, Uniform Commercial Code and Deceptive Trade Practices Act;

(F) identify the people with legal responsibility for the acts (civil and criminal) of the business organization;

(G) evaluate the facts of a contract dispute;

(H) explain the elements of legal contracts and negotiable instruments;

(I) identify federal and state legislation pertaining to computer crime, fraud, and abuse; and

(J) identify federal and state trademark and copyright laws pertaining to hardware and software.

§120.46. Business Management (One-Half Credit).

(a) General requirements. The recommended prerequisite for this course is Business Computer Information Systems I. This course is recommended for students in Grades 10-12.

(b) Introduction. Students recognize, evaluate, and prepare for a rapidly evolving global business environment that requires flexibility and adaptability. Students analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace. Students develop a foundation in the economical, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions.

(c) Knowledge and skills.

(1) The student illustrates the workflow of a business. The student is expected to:

(A) identify activities that create a workflow in a business;

(B) analyze office workflow and recommend modifications for improvement in routine procedures;

(C) identify the processes required to successfully operate different departments of a business; and

(D) compare different business operations and practices to determine productivity levels.

(2) The student develops skills necessary to address a changing business environment. The student is expected to:

(A) design a performance evaluation instrument; and

(B) identify legislation applicable to human resource management.

(3) The student analyzes the changing nature of business. The student is expected to:

(A) determine the impact of the changing social demands of employees on businesses locally, nationally, and internationally;

(B) analyze the impact of technology on business;

(C) evaluate the relationship of population migration, cultural diversity, and family demographics;

(D) analyze past and current modifications to United States business practices caused by global resources and competition; and

(E) describe the evolution of employment legislation due to the changing composition of the workforce.

(4) The student explains the concepts of integrity as related to the business environment. The student is expected to:

(A) determine definitions of business ethics and confidentiality;

(B) compares honest and dishonest business practices;

(C) analyze the effects of unethical practices on a business, on consumers, and on employees;

(D) identify ethical considerations resulting from technological advances;

(E) relate the historical impact of unethical practices and governmental regulations; and

(F) identify ethical considerations of workplace politics.

(5) The student appraises the economic and social benefits of a well-designed workplace conducive to employee well-being and productivity. The student is expected to:

(A) research the relationship between morale, productivity, and absenteeism;

(B) research the requirements for an ergonomically-sound work environment;

(C) identify the consequences of the use of controlled substances on the workplace; and

(D) observe a work environment and recommend modifications for a more ergonomically-sound workplace.

(6) The student balances employee privacy rights with employer obligations to provide a safe working environment. The student is expected to:

(A) review safety and security policy statements of various companies;

(B) research and provide evidence of a local company's compliance to safety and security policies; and

(C) discuss the pros and cons of drug testing, background investigation, and criminal record investigation.

(7) The student creates and carries out a business plan that results in a long-term project involving time sensitive activities. The student is expected to:

(A) develop a company vision and mission statement;

(B) contrast management and leadership styles and develop a personal philosophy of management;

(C) perform human resources responsibilities, for example, staffing, motivating, evaluating, and terminating employees;

(D) perform financial functions, for example, secure capital, select risk management programs, design a budget, and develop records management and credit systems using current technology;

(E) perform marketing functions, for example, marketing concepts, product life cycle, product and service distribution channels, purchasing system, pricing procedures, and advertising program;

(F) perform supervisory functions, for example, develop recycling program, plans and conducts meetings, develop policy and procedures manuals, constructs organizational charts, explains staff interrelationships, and organizes work teams using appropriate technology; and

(G) perform business communication functions intended for external and internal audiences, identify communication barriers, resolve conflicts, develop liaisons with other organizations within the community, and identify benefits of community involvement.

§120.47. Business Ownership (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 10-12.

(b) Introduction. Students recognize, evaluate, and prepare for a rapidly evolving global business environment that requires flexibility and adaptability. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce and/or postsecondary education. Students develop a foundation in the economical, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions.

(c) Knowledge and skills.

(1) The student demonstrates an understanding of economic principles. The student is expected to:

(A) identify the economic principles inherent in the United States Constitution and other historical documents;

(B) distinguish among economic resources, for example, natural, human, and capital;

(C) compare the economic impact of business ventures in capitalist, socialist, and communist countries;

(D) identify the economic advancement opportunities available within each economy;

(E) balance economic responsibilities with economic rights and protections; and

(F) analyze the impact of cultural differences on consumer choices and behavior.

(2) The student develops skills necessary to address a changing business environment. The student is expected to:

(A) identify a business problem, determines alternative solutions, and justifies a required change;

(B) design, conduct, and analyze a survey to identify business trends;

(C) determine the need and foundation of change management;

(D) identify needed interpersonal skills;

(E) research opportunities for professional self-improvement;

(F) identify resources for life-long learning opportunities;

(G) design an instrument and conducts a performance evaluation; and

(H) design and make a presentation on change management using appropriate technology.

(3) The student illustrates components of productivity. The student is expected to:

(A) identify and assess human resources needed in a competitive environment;

(B) describe the benefits of an ergonomically-sound workplace, for example, wellness, productivity, and morale; and

(C) relate the interaction of people and technology.

(4) The student determines the options for the organization of a business and its operation. The student is expected to:

(A) research possible entrepreneurial opportunities;

(B) identify different organizational structures available to an entrepreneur;

(C) evaluate and choose a business location;

(D) generate sources of various types of capital;

(E) formulate financial projections necessary for a business startup;

(F) adhere to proper legal, tax, and accounting principles;

(G) identify work tasks and develop job descriptions; and

(H) develop appropriate risk management strategies.

(5) The student formulates a marketing strategy for a business start-up. The student is expected to:

(A) develop a business vision and mission statement;

(B) write and orally defends a business plan for the startup of a business using electronic presentation tools;

(C) generalize the economic and business principles upon which business decisions are based;

(D) create a customer profile;

(E) develop strategies to deal with identified competition;

(F) develop a product strategy;

(G) develop a pricing strategy;

(H) develop a distribution plan;

(I) develop an advertising campaign; and

(J) develop a customer retention plan.

§120.48. Telecommunications and Networking (One-Half to One Credit).

(a) General requirements. The recommended prerequisite for this course is Business Computer Information Systems I. This course is recommended for students in Grades 10-12.

(b) Introduction. Students apply technical skills to address business applications of emerging technologies. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions.

(c) Knowledge and skills.

(1) The student complies with ethical and legal standards for networking and telecommunications. The student is expected to:

(A) analyze the global security issues involved with data communications;

(B) define and identify unethical practices such as hacking, phone fraud, on-line piracy, and data vandalism;

(C) evaluate issues related to privacy, depersonalization, and government control of telecommunications; and

(D) identify the potential benefits and problems for the future of telecommunications.

(2) The student assesses the development and impact of telecommunications. The student is expected to:

(A) identify the elements of communication;

(B) define telecommunications;

(C) analyze the impact of global telecommunications on business and society; and

(D) identify applications of data communication.

(3) The student analyzes various types and components of networks. The student is expected to:

(A) analyze various types and components of networks used in industries, such as:

(i) airlines;

(ii) banking;

(iii) investment services; and

(iv) credit card services; and

(B) describe characteristics of networks;

(C) distinguish between public and private networks;

(D) describe the characteristics of a local area network and a wide area network;

(E) compare the advantages and disadvantages of networking;

(F) list common networking protocols and describe their functions;

(G) create a folder or hierarchical structure for the storing and organizing of data on network(s);

(H) list common types of network cabling;

(I) distinguish between coaxial, twisted-pair, and fiber-optic cable; and

(J) identify the factors that might affect performance in a network environment.

(4) The student defines communications systems. The student is expected to:

(A) identify and describe the different components of the telecommunications industry;

(B) identify and explain various types of on-line services;

(C) identify the basic components of any communications systems;

(D) identify the types of communications hardware and explain their functions and use; and

(E) analyze the changing nature of the telecommunications industry.

(5) The student accesses, navigates, and applies on-line services with appropriate supervision. The student is expected to:

(A) participate in electronic mail/listserve discussion groups;

(B) exhibit ability to use usenet newsgroups;

(C) search on-line services to investigate electronic business practices;

(D) search and retrieve information; and

(E) demonstrate file compression or decompression.

(6) The student creates, edits, and installs web pages with appropriate supervision. The student is expected to:

(A) identify the components of effective web page organization;

(B) create documents using the Hypertext Markup Language (HTML); and

(C) maintain a web page, electronic bulletin board, or other emerging technology system.

§120.49. Word Processing Applications (One-Half to One Credit).

(a) General requirements. The prerequisite for this course is Keyboarding, one-half credit or equivalent, as described in §120.26(a) of this title (relating to Keyboarding (One-Half to One Credit)). The recommended prerequisite for this course is Business Computer Information Systems I. This course is recommended for students in Grades 10-12.

(b) Introduction. Students apply technical skills to address business applications of emerging technologies. Students enhance

reading, writing, computing, communications, and reasoning skills and apply them to the business environment.

(c) Knowledge and skills.

(1) The student prepares business documents using effective communications. The student is expected to:

(A) interpret and follow directions to produce documents;

(B) demonstrate proficiency in business English, spelling, and proofreading;

(C) identify and apply correct format for business correspondence and documents; and

(D) demonstrate concepts and processes to employ the appropriate steps in document production.

(2) The student improves level of proficiency in producing complex business documents. The student is expected to:

(A) refine work habits; and

(B) improve techniques, speed, and accuracy in document production.

(3) The student solves problems using document processing skills. The student is expected to:

(A) identify criteria for selection and evaluation of word processing software;

(B) make decisions concerning placement, format, and priority of completion;

(C) produce business correspondence, such as manuscripts, tables, reports, legal documents, and business forms; and

(D) produce a variety of business documents under timed situations.

(4) The student develops advanced word processing skills. The student is expected to:

(A) perform advanced word processing functions, such as:

(i) creating newspaper-style columns;

(ii) inserting section breaks;

(iii) creating templates;

(iv) selecting styles;

(v) applying autoformatting;

(vi) utilizing borders and shading;

(vii) defining page setup;

(viii) converting document formats;

(ix) searching files;

(x) creating macros;

(xi) addressing envelopes;

(xii) creating labels;

(xiii) utilizing mail merge; and

(xiv) customizing the desktop, by using toolbars, menus, and shortcut keys; and

(B) import existing spreadsheet and database data into word processing documents; and

(C) apply layout and design concepts in desktop publishing, including:

(i) graphics;

(ii) fonts;

(iii) text boxes;

(iv) frames; and

(v) tables.

(5) The student develops the technology and social skills necessary to work in an office environment. The student is expected to:

- (G) apply related accounting procedures to budgeting and control;
 - (H) apply related accounting procedures to financial reporting;
 - (I) differentiate between the basics of a cash-basis accounting system and an accrued-basis accounting system;
 - (J) calculate the cost of inventory on hand using appropriate inventory calculation methods;
 - (K) compile data and prepare local, state, and federal tax reports;
 - (L) implement cost accounting procedures for manufacturing accounting;
 - (M) record transactions using a voucher system; and
 - (N) design a budgetary control system.
- (3) The student applies accounting knowledge when making business decisions. The student is expected to:
- (A) determine management costs control;
 - (B) determine cost-volume-profit relationships;
 - (C) make pricing decisions that utilize cost data;
 - (D) follow and analyze the fluctuation of specific stocks; and
 - (E) follow and interpret a selected financial market.
- (4) The student identifies and researches career opportunities in accounting. The student is expected to:
- (A) identify the responsibilities for various accounting positions by interviewing or shadowing accountants;
 - (B) research career paths in private and public accounting; and
 - (C) determine the requirements for accounting licensure examinations.
- (5) The student employs productivity skills as they apply to accounting. The student is expected to:
- (A) develop time management skills in setting priorities and locating information about methods and materials needed to complete a task;
 - (B) solve accounting problems by using spreadsheet and/or specialized accounting software;
 - (C) make decisions using appropriate accounting concepts; and
 - (D) demonstrate the concepts of integrity and confidentiality as they relate to the accounting profession.

§120.63. Administrative Procedures.(One to Three Credits)

(a) General requirements.

(1) Students may be awarded one to three credits for successful completion of this course. The prerequisite for this course is Keyboarding, one-half credit or equivalent, as described in §120.26(a) of this title (relating to Keyboarding (One-Half to One Credit)). This course is recommended for students in Grades 11-12. The knowledge and skills described in subsection (c) of this section

comprise the content for the laboratory or cooperative instructional setting.

(2) For specialization in legal administrative procedures, students may meet the additional content described in subsection (d) of this section.

(3) For specialization in medical administrative procedures, students may meet the additional content described in subsection (e) of this section.

(b) Introduction. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce and/or postsecondary education. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economical, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students enhance reading, writing, computing, communications, and reasoning skills and apply them to the business environment. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions.

(c) Knowledge and skills.

(1) The student communicates effectively. The student is expected to:

- (A) demonstrate basic writing skills through assigned tasks;
- (B) demonstrate effective communication techniques when placing and receiving telephone calls, including conference calls;
- (C) demonstrate the ability to compose and record appropriate voice mail messages;
- (D) demonstrate the ability to listen by writing summaries of meetings, presentations, and oral conversations;
- (E) demonstrate the ability to give instructions by writing the procedure for completing a simple task;
- (F) identify and demonstrate ways to improve communication in organizations; and
- (G) develop and exhibit an assertive, non-aggressive communication style.

(2) The student identifies procedures involved in delivering information and products. The student is expected to:

- (A) identify classes of mail;
- (B) identify available delivery services;
- (C) identify shipping and packaging requirements;
- (D) compare costs of various delivery services; and
- (E) select and defend an appropriate delivery service.

(3) The student identifies career opportunities in office occupations. The student is expected to:

- (A) assess personal marketability; and

(B) identify appropriate employment opportunities and those emerging through technology by analyzing established resources.

(4) The student evaluates office support responsibilities. The student is expected to:

(A) schedule meetings and appointments;

(B) identify appropriate manual and electronic aids to help maintain a calendar;

(C) exhibit initial customer contact skills;

(D) plan and organize meetings and conferences;

(E) make travel arrangements, both national and international; and

(F) prepare agendas.

(5) The student prepares for professional advancement. The student is expected to:

(A) evaluate and compare employment options, for example, salary, benefits, and perquisites;

(B) demonstrate proper interview techniques in various situations; and

(C) complete job search procedures.

(6) The student applies principles of effective human relations skills. The student is expected to:

(A) demonstrate professional qualities including positive attitude, loyalty, and diplomacy;

(B) demonstrate professionalism through personal appearance, neatness of work area, and correctness of completed tasks;

(C) identify and demonstrate skills needed to maintain effective work relations with colleagues;

(D) demonstrate a respect for individual differences;

(E) apply tact in handling criticism, disagreement, or disappointment; and

(F) explain the concepts of integrity and confidentiality as related to the office environment.

(7) The student practices productivity skills as they apply to the office environment. The student is expected to:

(A) follow oral and written instructions;

(B) apply technology to enhance time management skills in setting priorities for completing work as scheduled;

(C) make decisions using appropriate office procedures;

(D) apply manual and electronic methods to perform office procedures; and

(E) relate the concepts of integrity and confidentiality to the office environment.

(8) The student maintains office systems. The student is expected to:

(A) establish an office supplies inventory and purchasing schedule;

(B) prepare an inventory record of hardware, software, furniture, and equipment and performs updates on records;

(C) adhere to maintenance and repair schedules as well as suggested care of office equipment, for example, computers, printers, and photocopiers; and

(D) conduct a needs assessment, for example, evaluates the need for purchasing new equipment, software, and telecommunications systems.

(9) The student produces business documents using current and emerging technology. The student is expected to:

(A) identify and classify document creation software;

(B) input data using the touch system;

(C) produce business documents using word-processing, database, and spreadsheet software;

(D) correct and print a business document;

(E) perform business calculations using spreadsheet software; and

(F) produce a business report containing text and graphics.

(10) The student manages information. The student is expected to:

(A) maintain a professional reading file;

(B) develop and maintain a system of electronic and manual filing;

(C) develop and maintain a tickler file;

(D) establish and maintain a system for document and information storage and retrieval;

(E) establish and maintain files of addresses and telephone numbers; and

(F) organize and produce a database to organize business information.

(11) The student performs financial functions for an office. The student is expected to:

(A) calculate answers to problems using addition, subtraction, multiplication, division, percentages, and decimals;

(B) manage cash fund accounts, for example, petty cash and cash advance;

(C) prepare and post check records;

(D) prepare bank deposits;

(E) reconcile bank statements;

(F) determine budgetary requirements for office supplies and equipment;

(G) monitor an office budget;

(H) complete purchase requisitions;

(I) complete vouchers for payment; and

(J) research emerging technology to automate the financial functions of an office.

(12) The student utilizes employability skills to gain a position in a company. The student is expected to:

(A) identify employment opportunities and completes job search procedures, for example, resumes, job applications, and W-4 forms;

(B) demonstrate proper interview techniques; and

(C) create appropriate documents, for example, application and thank you letters.

(13) The student identifies skills and attributes necessary for professional advancement. The student is expected to:

(A) evaluate and compare employment options, for example, salaries, benefits, and perquisites; and

(B) demonstrate proper interview techniques in various situations.

(14) The student develops skills for successful transition to the workplace. The student is expected to:

(A) explain importance of and models appropriate dress, hygiene, and demeanor for the work assignment;

(B) demonstrate dependability, punctuality, and initiative;

(C) exhibit productive work habits and attitudes;

(D) demonstrate the ability to work with the other employees to promote the organization and complete assigned tasks;

(E) prioritize work to fulfill responsibilities and meet deadlines; and

(F) identify and rank tangible and intangible rewards of work.

(15) The student applies work ethics, job expectations, multicultural considerations, and communication skills in the workplace. The student is expected to:

(A) illustrate how personal integrity affects human relations on the job;

(B) demonstrate characteristics of successful working relationships, for example, teamwork, self-control, and ability to accept criticism;

(C) analyze employer expectations;

(D) demonstrate a respect for the rights of others;

(E) communicate effectively via oral, written, and electronic channels;

(F) identify ethical standards; and

(G) compare organizational policies and procedures.

(16) The student evaluates office support responsibilities. The student is expected to:

(A) schedule meetings and appointments;

(B) identify appropriate calendaring methods;

(C) exhibit initial customer contact skills;

(D) prepare agendas;

(E) plan and organize meetings, for example, a student organization meeting; and

(F) make travel arrangements.

(17) The student applies word processing technology. The student is expected to:

(A) identify customary styles of business documents;

(B) input data using the touch system;

(C) demonstrate basic writing techniques;

(D) produce business documents;

(E) edit a variety of written documents; and

(F) identify technologies that enhance or replace the touch system of data entry.

(18) The student applies spreadsheet technology. The student is expected to:

(A) perform correct mathematical processes; and

(B) solve a variety of business problems including budget (personal and business), payroll, inventory, invoices, balance sheets, and profit and loss statements.

(19) The student applies desktop publishing technology. The student is expected to:

(A) identify technologies available for desktop publishing;

(B) identify customary standards and styles of desktop publishing; and

(C) create publications importing text and graphics.

(d) Subset knowledge and skills for legal administrative procedures.

(1) The student demonstrates proficiency in personal and professional communication. The student is expected to:

(A) research and reference supplementary issues and information;

(B) demonstrate active listening through oral and written feedback;

(C) distinguish communicated fact from opinion by identifying key words;

(D) interpret nonverbal communication by various activities; and

(E) provide instructions by writing the procedure for completing a specific task.

(2) The student employs the concepts of integrity and confidentiality as related to the legal environment. The student is expected to:

(A) perform duties and responsibilities common to a law office;

(B) identify current terminology related to the legal profession and to technology;

(C) identify social implications as related to the legal industry;

(D) identify the major issues and technological developments related to the legal industry and technology;

(E) analyze the effects of unethical practices on a business; and

(F) analyze the effects of unethical practices on clients.

(3) The student demonstrates concepts and skills necessary to function productively in a law office. The student is expected to:

(A) perform duties and responsibilities common to a law office;

(B) identify current terminology related to the legal profession and to technology;

(C) identify social implications as related to the legal industry;

(D) identify the major issues and technological developments related to the legal industry and technology;

(E) describe the ethical and legal issues resulting from the computer revolution; and

(F) identify privacy issues involved with electronic data storage.

(4) The student demonstrates concepts and skills necessary for use of word processing software, equipment, and tools to produce documents related to the legal office. The student is expected to:

(A) demonstrate keyboarding, formatting, and proofreading, using word processing and grammar checking software and automated spellcheck and thesaurus;

(B) apply correct format for general and legal correspondence and documents;

(C) apply page layout techniques to desktop publishing documents; and

(D) compose and prepare effective legal communications using the document production cycle.

(5) The student demonstrates concepts and skills related to information management and control of legal documents. The student is expected to:

(A) manage records manually by applying terminology and procedures for indexing, coding, and filing alphabetically; and

(B) demonstrate procedures for managing computerized information.

(6) The student demonstrates concepts and skills related to effective communication and production of legal documents. The student is expected to:

(A) demonstrate proficiency in business usage of the English language, spelling, grammar, punctuation, and proofreading;

(B) demonstrate proficiency in machine transcription;

(C) apply proper business telephone etiquette techniques; and

(D) recognize classes of business mail, special mailing services, and procedures for handling incoming and outgoing mail, for example, electronic mail, United States Postal Service, and express delivery services.

(e) Subset knowledge and skills for medical administrative procedures.

(1) The student demonstrates proficiency in personal and professional communication. The student is expected to:

(A) research and reference supplementary issues and information;

(B) demonstrate active listening through oral and written feedback;

(C) distinguish communicated fact from opinion by identifying key words;

(D) interpret nonverbal communication by various activities; and

(E) write procedural instructions for completing a specific task.

(2) The student employs the concepts of integrity and confidentiality as related to the medical environment. The student is expected to:

(A) define medical ethics;

(B) define honest and dishonest business practices;

(C) identify ethical considerations resulting from technological advances;

(D) analyze the effects of unethical practices on a medical practice; and

(E) analyze the effects of unethical practices on patients.

(3) The student demonstrates concepts and skills necessary to function productively in a medical office. The student is expected to:

(A) perform duties and responsibilities common to a medical office;

(B) identify current terminology related to the medical profession and to technology;

(C) identify the prefixes, suffixes, and root words as related to the medical field;

(D) identify social implications as related to the medical industry;

(E) identify the major issues and technological developments related to the medical industry and technology;

(F) describe the ethical and legal issues resulting from the computer revolution; and

(G) identify privacy issues involved with electronic data storage.

(4) The student demonstrates concepts and skills necessary for using word processing software, equipment, and tools to produce documents related to the medical office. The student is expected to:

(A) demonstrate keyboarding, formatting, and proofreading, using word processing and grammar checking software and automated spellcheck and thesaurus;

(B) apply correct format for general and medical correspondence and documents;

(C) apply page layout techniques to desktop publishing documents; and

(D) compose and prepare effective medical communications using the document production cycle.

(5) The student demonstrates concepts and skills related to information management and control of medical documents. The student is expected to:

(A) manage records manually by applying terminology and procedures for indexing, coding, and filing alphabetically; and

(B) demonstrate procedures for managing manual records and computerized information.

(6) The student demonstrates concepts and skills related to effective communication and production of medical documents. The student is expected to:

(A) demonstrate proficiency in business usage of the English language, spelling, grammar, punctuation, and proofreading;

(B) demonstrate proficiency in machine transcription;

(C) model proper business telephone etiquette techniques; and

(D) recognize classes of business mail, special mailing services, and procedures for handling incoming and outgoing mail, for example, electronic mail, United States Postal Service, and express delivery services.

(7) The student demonstrates concepts and skills related to processing medical insurance. The student is expected to:

(A) demonstrate the procedures for entering and tracking government claims; and

(B) demonstrate the procedures for entering and tracking private carrier claims.

§120.64. Business Computer Information Systems II (One-Half to Three Credits).

(a) General requirements.

(1) Students may be awarded one-half to one credit for successful completion of this comprehensive course. The recommended prerequisite for this course is Business Computer Information Systems I. This course is recommended for students in Grades 10-12.

(2) Students may be awarded one to three credits for successful completion of this course if in a laboratory or cooperative instructional setting. The recommended prerequisite for this course is Business Computer Information Systems I. This course is recom-

mended for students in Grades 11-12. The workplace competencies may be added to the course content by the teacher.

(b) Introduction. Students recognize, evaluate, and prepare for a rapidly evolving global business environment that requires flexibility and adaptability. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce and/or postsecondary education. Students analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economical, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students enhance reading, writing, computing, communications, and reasoning skills and apply them to the business environment.

(c) Knowledge and skills.

(1) The student develops skills necessary to address a changing business environment. The student is expected to:

(A) design, conduct, and analyze a survey to identify business trends and changes; and

(B) identify a business problem, determine alternative solutions, and defend a recommendation.

(2) The student develops skills for successful transition to the workplace. The student is expected to:

(A) exhibit productive work habits and attitudes;

(B) prioritize work to fulfill responsibilities and meet deadlines;

(C) demonstrate characteristics for successful working relationships, for example, give and receive criticism, and exercise self-control.

(3) The student appraises the components of productivity. The student is expected to:

(A) plan projects considering time and resource management utilizing current and emerging technologies;

(B) identify the requirements for an ergonomically-sound work environment; and

(C) identify tasks necessary to complete a job.

(4) The student examines employment opportunities in various business environments. The student is expected to:

(A) describe the impact of technological change on computer information systems positions and the resulting need for life-long learning and retraining;

(B) evaluate employment packages by studying various business options, including:

(i) cafeteria plan;

(ii) individual retirement plan (IRA);

(iii) tax sheltered annuities;

(iv) retirement;

(v) commission;

(vi) benefits; and

(vii) transportation assistance; and

(C) research employment opportunities in the field of computer information systems; and

(D) prepare a personal portfolio for employment purposes, including:

(i) letters of application;

(ii) resumes;

(iii) reference sheets; and

(iv) examples of achievement.

(5) The student relates concepts of integrity and confidentiality to the business environment. The student is expected to:

(A) analyze the effects of ethical practices on a business; and

(B) analyze the risks of a breach of confidentiality.

(6) The student analyzes and implements appropriate technology as tools to address business needs. The student is expected to:

(A) select and apply appropriate technology as tools to address business needs;

(B) research emerging information systems tools;

(C) perform specific tasks using appropriate specialized hardware and software;

(D) format and produce business documents for mailing, including:

(i) merged mail, lists, and reports;

(ii) integrated financial reports;

(iii) payroll reports; and

(iv) technical reports; and

(E) research and develop a business project incorporating data imported from various sources; and

(F) select and apply technology to process and manipulate text, graphics, and other images.

(7) The student applies a presentation system. The student is expected to:

(A) identify standards and styles of multimedia presentations;

(B) identify guidelines for using graphics, sound, and video objects in text documents and presentations;

(C) integrate multimedia functions into text documents; and

(D) prepare documents and presentations using the appropriate medium.

(8) The student designs solutions to mathematical business problems using spreadsheet technology. The student is expected to:

(A) recognize and apply lookup tables, built-in functions, macros, and advanced charts and graphs;

(B) determine the uses of spreadsheets with currencies other than the dollar based on current market value;

(C) create and interpret financial statements, including:

(i) comparisons and projections;

(ii) predictions and forecasts;

(iii) trend analysis; and

(iv) charts and graphs; and

(D) produce a future-value, investment-analysis worksheet, including:

(i) macros;

(ii) what-if assumptions; and

(iii) advanced functions.

(9) The student follows procedures of data management. The student is expected to:

(A) design a database to solve business problems; and

(B) research multiple databases to develop a sales forecast presentation.

(10) The student exchanges information via telecommunications software with appropriate supervision. The student is expected to:

(A) exhibit correct telecommunications ethics and etiquette;

(B) develop guidelines for using on-line services; and

(C) research world-wide information via telecommunications, including:

(i) cyberpals;

(ii) global surveys; and

(iii) research.

(11) The student applies a publishing system. The student is expected to:

(A) identify technologies available for publishing documents;

(B) adhere to established standards and styles of publishing; and

(C) publish documents, including:

(i) instructional manuals;

(ii) employment portfolios;

(iii) multiple-page newsletters; and

(iv) business brochures.

(12) The student analyzes computer operating systems and emerging technologies. The student is expected to:

(A) select operating systems, environments, and utilities appropriate to specific hardware and software;

(B) apply operating systems commands;
(C) import, export, and merge data stored in different formats; and

(D) research emerging operating systems.

(13) The student identifies the concepts of a computer network. The student is expected to:

(A) research options for connecting one computer to another; and

(B) access data storage and output devices using a network.

(14) The student demonstrates procedures for maintaining the security of computerized information. The student is expected to:

(A) research controls for information systems facilities, data, communications, and applications appropriate to specific risks;

(B) research law and legislation concerning electronic security breaches; and

(C) apply procedures used to restart and recover from situations such as system failure and computer virus.

§120.65. Business Computer Programming (One-Half to Three Credits).

(a) General requirements.

(1) Students may be awarded one-half to one credit for successful completion of this comprehensive course. The recommended prerequisites for this course are Keyboarding, one-half credit or equivalent, as described in §120.26(a) of this title (relating to Keyboarding (One-Half to One Credit)), and Business Computer Information Systems I. This course is recommended for students in Grades 10-12.

(2) Students may be awarded one to three credits for successful completion of this course if in a laboratory or cooperative instructional setting. The recommended prerequisites for this course are Keyboarding, one-half credit or equivalent, as described in §120.26(a) of this title (relating to Keyboarding (One-Half to One Credit)), and Business Computer Information Systems I. This course is recommended for students in Grades 11-12. Workplace competencies will be added to the course content by the teacher.

(b) Introduction. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce and/or postsecondary education. Students analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economical, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students enhance reading, writing, computing, communications, and reasoning skills and apply them to the business environment.

(c) Knowledge and skills.

(1) The student identifies employment opportunities in various business environments. The student is expected to:

(A) identify positions and career paths in the field of computer information systems, for example, programmer, and system analyst;

(B) identify common tasks performed by computer information systems workers; and

(C) research education, experience, skills, and personal requirements for careers in computer information systems.

(2) The student differentiates the concepts of integrity and confidentiality as related to technology in the business environment. The student is expected to:

(A) define business ethics;

(B) define honest and dishonest business practices; and

(C) analyze the effects of unethical practices on a business.

(3) The student analyzes programming languages and operating systems. The student is expected to:

(A) identify the types and levels of programming languages and operating systems;

(B) identify emerging languages and operating systems;

(C) identify the functions and features of different languages and operating systems; and

(D) select language and operating systems appropriate to specific hardware and software.

(4) The student solves problems using different types and levels of programming languages. The student is expected to:

(A) illustrate the use of various types of languages and operating systems;

(B) interpret source and object codes;

(C) solve business programming applications using appropriate software;

(D) produce business programs using structured coding with appropriate style and clarity of expression;

(E) develop code with correct and efficient use of constant and variable data;

(F) develop code with correct and efficient use of sequential, conditional, and repetitive control structures;

(G) demonstrate skill in testing for program correctness using effective coding, design, and test data;

(H) compare computed results with estimated results to determine the reasonableness of the solutions;

(I) recognize, describe, and predict patterns of data;

(J) troubleshoot technological problems; and

(K) import, export, and merge data stored in different formats.

(5) The student solves problems using analytical techniques. The student is expected to:

(A) organize ideas through thematic webbing, ideamapping, outlining, pseudocoding, and other techniques;

(B) identify and describe various structured analysis and design methodologies; and

(C) analyze a problem by formulating a structured approach.

(6) The student applies procedures for maintaining the security of computerized information. The student is expected to:

(A) identify risks to information systems facilities, data, communications systems, and applications;

(B) identify federal and state legislation pertaining to computer crime, fraud, and abuse;

(C) identify and select controls for information systems facilities, data, communications, and applications appropriate to specific risks; and

(D) apply procedures used to restart and recover from situations such as system failure and computer virus.

§120.66. International Business (One-Half to Three Credits).

(a) General requirements.

(1) Students may be awarded one-half to one credit for successful completion of this comprehensive course. The recommended prerequisite for this course is Business Computer Information Systems I. This course is recommended for students in Grades 10-12.

(2) Students may be awarded one to three credits for successful completion of this course if in a laboratory or cooperative instructional setting. The recommended prerequisite for this course is Business Computer Information Systems I. This course is recommended for students in Grades 11-12. The workplace competencies will be added to the course content by the teacher.

(b) Introduction. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce and/or postsecondary education. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economical, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students enhance reading, writing, computing, communications, and reasoning skills and apply them to the business environment.

(c) Knowledge and skills.

(1) The student identifies employee rights and protections afforded by law. The student is expected to:

(A) identify an employee's right to work in other countries by examining international affirmative action laws and laws restricting discriminations;

(B) identify international practices pertaining to safety in the workplace; and

(C) research an employee's right to organize and participate in a union in other countries.

(2) The student generates domestic and international travel plans. The student is expected to:

(A) identify sources from which to purchase tickets;

(B) select appropriate options for lodging accommodations; and

(C) plan a trip to a foreign country, considering social and language differences, currency exchange, passport acquisition, time differences, and immunization requirements.

(3) The student explores multicultural business opportunities utilizing international resources. The student is expected to:

(A) explore issues involved in living and working abroad;

(B) compare the social roles of various subgroups in different countries;

(C) explain effects of regional and global economics on educational and career opportunities;

(D) analyze government employment opportunities;

(E) research educational programs relating to international business study; and

(F) summarize personnel policies of multinational firms.

(4) The student analyzes employability skills to obtain successful employment with a company. The student is expected to:

(A) assess personal international marketability;

(B) identify appropriate employment opportunities abroad;

(C) evaluate international employment options, for example, salaries, benefits, perquisites; and

(D) generate an orientation manual for people preparing to live and work in a foreign country.

(5) The student exchanges information via telecommunications software, for example, electronic mail, images, remote bulletin board access, and access of on-line information services with appropriate supervision. The student is expected to:

(A) evaluate and select most appropriate telecommunications methods for a given situation;

(B) practice proper etiquette when using telecommunications;

(C) evaluate the role of interpreters and translators in conducting international business; and

(D) send and receive information via telecommunications technology.

(6) The student determines options for the organization of an international business and its operation. The student is expected to:

(A) analyze the formation and structure of a functioning international business;

(B) contrast steps required in forming different types of international business organizations;

(C) identify legal responsibility for the acts (civil and criminal) of the business organization;

(D) determine financial requirements and resources required to organize and operate businesses in foreign markets;

(E) evaluate joint venture options for different types of business products or services;

(F) evaluate the risks and rewards of entrepreneurship unique to international business;

(G) formulate a proposal justifying the selection of a country for trade within a specific industry; and

(H) propose strategies justifying the selection of a country for production of a particular product.

(7) The student identifies the roles of marketing in international business activities. The student is expected to:

(A) research international consumer activity and prepare a feature and benefit analysis for a variety of consumer products and services;

(B) select international, consumer product, transportation, service, and presentation options;

(C) select procurement procedures to accommodate the manufacturing and distribution plan, for example, maquiladoras (twin plant operation);

(D) outline an effective foreign advertising campaign;

(E) document the return on international marketing activities by providing a cost-benefit analysis; and

(F) identify the issues affecting marketing in international trade.

(8) The student researches the impact of international trade on domestic and global economy. The student is expected to:

(A) survey the experiences of companies that have entered the international arena;

(B) determine the extent and options of a company desiring to enter the international arena;

(C) identify advertising media used in foreign markets, for example, newspaper, radio, television, Internet, and magazine;

(D) contrast home-country, host-country considerations involved in any international transaction;

(E) analyze the influence of political, social, and cultural factors affecting products or services in foreign markets;

(F) relate the historical events that have affected international business;

(G) predict influence of foreign trade on a nation's taxation policy and duties;

(H) determine the effects of international currency exchange, foreign exchange markets, investments, banking and finance, economic policies, and tariff policies on international business;

(I) survey import and export procedures and documents needed for international business;

(J) survey the role and responsibility of United States Customs Service, Federal Drug Administration, United States Department of Agriculture, Department of Transportation, Federal Communications Commission, Environmental Protection Agency, Small Business Administration, United States Agency for International Development, Department of Commerce, Federal Trade Commission, United States Export Import Bank, World Bank, and Overseas Private Investment Corporation;

(K) relate the effects of geography, time zones, work days, resources, and natural harbors on international business;

(L) appraise the purpose and impact of trade sanctions, military acts, environmental concerns, and non-tariff trade barriers on international business;

(M) consider a product index to identify a specific product in various countries by different product names;

(N) relate effects of copyrights and trademarks and intellectual property rights on international business; and

(O) recognize the impact illegal products have on United States businesses.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 15, 1997.

TRD-9706435

Criss Cloudt

Associate Commissioner, Policy Planning and Research
Texas Education Agency

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For further information, please call: (512) 463-9701



Subchapter E. Research Based, High School

19 TAC §120.81, §120.82

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§120.81. Implementation of Texas Essential Knowledge and Skills for Business Education, Research Based, High School.

The provisions of Chapter 120, Subchapter B-E, shall supersede §75.70 of this title (relating to Business Education) and §75.87 of this title (relating to Office Education) beginning September 1, 1998.

§120.82. Business Education Independent Study (One-Half to One Credit).

(a) General requirements. The recommended prerequisites are any two business courses in the student's career concentration area. This course is recommended for students in Grade 12.

(b) Introduction. Students apply technical skills to address business applications of emerging technologies. Students enhance reading, writing, computing, communications, and reasoning skills and apply them to the business environment.

(c) Knowledge and skills.

(1) The student solves problems using analytical techniques. The student is expected to:

(A) identify a problem that requires research, for example, a business issue, a feasibility study, and a product evaluation;

(B) investigate the issues associated with the problem;

(C) collect primary data (interviews, surveys, observations) and secondary data (printed materials, Internet information);

(D) evaluate alternative solutions; and

(E) determine the most appropriate solution.

(2) The student demonstrates proficiency in communicating on a professional level. The student is expected to:

(A) express thoughts logically and sequentially in preparing a formal report;

(B) interpret and present quantitative data in graph format within the report;

(C) present the findings of the study in a presentation to the appropriate individuals, for example, business, chamber of commerce, city council, school board, teachers, and mentors; and

(D) prepare visuals and handouts to support the presentation.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Chapter 121. Texas Essential Knowledge and Skills for Health Science Technology Education

The Texas Education Agency (TEA) adopts new §§121.1-121.5, 121.11-121.15, 121.21-121.26, 121.31, and 121.32, concerning health science technology education. The new sections are adopted with changes to the proposed text as published in the February 28, 1997, issue of the *Texas Register* (22 TexReg 2119). The new sections establish the essential knowledge and skills for the following four systems in health science technology education: (1) therapeutic; (2) diagnostic; (3) informational; and (4) environmental. The new sections are necessary to ensure that students throughout the state have access to the enrichment curricula. The provisions of these sections shall supersede §75.84 of this title (relating to Health Occupations Education) beginning September 1, 1998.

The Texas Education Code organizes the required curriculum into two types: the foundation curriculum and the enrichment curriculum. As specified in legislation, the essential knowledge

and skills of the enrichment curriculum serve as guidelines to school districts in providing instruction. In doing so, some districts may incur costs for professional development and equipment. These potential costs cannot be estimated.

Members of the public expressed concern about adoption of a certificate of initial mastery. Neither the Texas essential knowledge and skills (TEKS) nor any other rule contains reference to, promotes, or establishes a certificate of initial mastery.

The following changes have been made since the sections were proposed.

Several editorial changes were made throughout the sections to include the number of credit(s) provided from each course.

Since filing of the proposed sections, legal counsel has advised that since the sections serve as guidelines for instruction, language containing or implying mandates on school districts should be stricken and replaced with more permissive language where necessary. The term "shall" appeared in some content areas in the following types of circumstances: (1) in the amount of course credit to be awarded to a student for successful completion of a course; (2) in some career and technology courses in references to workplace and other competencies; and (3) in statements regarding the date of implementation of the provisions for each subchapter.

The term "capstone" in career and technology education courses has been replaced with the term "independent study" to clarify language. The career and technology education courses consist of an in-depth study of a business/industry that is of particular interest to a student.

Several individuals who testified at the public hearing held on March 4, 1997, stated that the career and technology education essential knowledge and skills contain references to the skills and competencies identified by the Secretary's Commission on Achieving Necessary Skills (SCANS) and thus reflect federal influence. TEA staff has carefully reviewed the sections being adopted for evidence of SCANS skills and competencies. The sections being adopted do not contain specific references to SCANS; however, the sections do contain skills and competencies that are among those recommended by the commission. The curriculum writing teams, members of the SBOE Review Committee, and others who had suggested strengthening the TEKS drafts expressed a strong belief that some skills and competencies identified by the SCANS commission are an essential part of an effective curriculum.

In subsection (b)(3) of §§121.12-121.15, the term "real world" has been replaced with the term "physical world."

In subsection (c)(3) of §§121.12-121.15, the phrase "in a real-world context" was removed based on concerns with the language.

The following comments were received regarding adoption of the new sections.

Issue: terminology.

Comment. A member of the Health Science writing team requested that the term "knows" in §121.2(c)(2), §121.3(c)(7), §121.4(c)(7), §121.5(c)(4), §121.23(c)(4), §121.24(c)(4),

§121.25(c)(4), and §121.32(c)(3) be replaced with the term "understands."

Agency Response. The agency disagrees with this comment. The term "knows" is appropriate for the knowledge and skill statements in this section based on it being measurable.

General Comments.

Comment. A member of the National Science Foundation commented that he felt that the initial basic understanding statements were much stronger and clearer than the shorter, condensed statements.

Agency Response. The board-approved format does not include basic understandings.

Issue: course liabilities and terminology.

Comment. A school district commented that many activities are dangerous without adequate controls, especially in Medical Microbiology. The purpose of this course was questioned. Phrases such as "self-esteem" and "knowing how to learn" are vague.

Agency Response. Students can receive science credit for completing Medical Microbiology. The one-semester course is optional for districts to offer and would have the same or higher safety standards as all science courses. The term "self-esteem" is not found in the Health Science TEKS. Furthermore, "knowing how to learn" is important because the medical field is constantly changing, and continuing education is necessary to maintain a professional license.

Issue: appropriateness of performance descriptions and how to measure.

Comment. An individual commented against performance descriptions related to caring for the resident environment and caring for the dying resident.

Agency Response. No changes to the proposed sections are recommended.

Comment. An individual questioned offering Gerontology in Grade 10 and stated that the course only leads to entry-level employment with minimum salary.

Agency Response. No changes to the proposed sections are recommended based on agency wanting to give districts more flexibility.

Comment. An individual questioned the ability of a teacher to measure words such as "sensitivity training", "coping skills", "values", "group dynamics", and "cultural diversity."

Agency Response. Words such as "sensitivity training", "values", and "cultural diversity" have been removed following earlier TEKS drafts.

Subchapter A. Coherent Sequence, High School

19 TAC §§121.1–121.5

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§121.1. Implementation of Texas Essential Knowledge and Skills for Health Science Technology Education, Coherent Sequence.

The provisions of this chapter shall supersede §75.84 of this title (relating to Health Occupations Education) beginning September 1, 1998.

§121.2. Introduction to Health Science Technology (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction.

(1) To pursue a career in health care, students should know how to learn, reason, think critically, make decisions, solve problems, and communicate effectively. Students should understand that quality health care depends on the ability to work well with others.

(2) The health care industry is comprised of diagnostic, therapeutic, informational, and environmental systems that function individually and collaboratively to provide comprehensive health care. Students should understand the employment opportunities, technology, and safety requirements of each system. Students are expected to learn the knowledge and skills necessary to pursue a health career through further education and/or employment.

(3) Professional integrity in health care is dependent on acceptance of ethical and legal responsibilities. Students are expected to understand their ethical and legal responsibilities, limitations, and the implications of their actions.

(c) Knowledge and skills.

(1) The student applies math, science, English language arts, and social studies in health science. The student is expected to:

(A) add, subtract, multiply, and divide rational numbers in health-related problems;

(B) apply data from tables, charts, and graphs to estimate and find solutions to health-related problems;

(C) organize, write, and compile ideas into reports and summaries;

(D) make contributions relevant to topics in group discussions;

(E) survey and research the historical significance of health care;

(F) describe the impact of health services on the economy;

(G) identify age and cultural influences that have impacted contemporary aspects of health care delivery;

(H) identify human needs according to Maslow's Hierarchy of Human Needs;

(I) describe the stages of development related to the life span; and

(J) identify the concepts of health and wellness through the life span.

(2) The student knows ethical behavior standards and legal responsibilities of health care professionals. The student is expected to:

- (A) compare published professional codes of ethics;
- (B) identify responsible and ethical behavior;
- (C) identify ethical issues related to health care delivery;
- (D) describe the consequences of breach of confidentiality;
- (E) research and describe laws governing the health care industry; and
- (F) differentiate between malpractice and negligence.

(3) The student knows characteristics of a health care worker. The student is expected to:

- (A) describe personal characteristics of a health care worker from the perspective of a consumer; and
- (B) select effective health and wellness routines for health care workers, including stress management.

(4) The student knows the importance of the health care team in providing client care. The student is expected to:

- (A) explain the concept of teaming to provide quality health care; and
- (B) explain the role of professional organizations in the preparation and governance of credentialed health care workers.

(5) The student knows the leadership skills necessary to function in a democratic society. The student is expected to:

- (A) identify traits of a leader; and
- (B) demonstrate skills, characteristics, and responsibilities of leaders and group members.

(6) The student identifies the systems related to health occupations. The student is expected to:

- (A) review health careers within the therapeutic, diagnostic, informational, and environmental systems;
- (B) identify the collaborative role of team members between systems to deliver quality health care; and
- (C) identify technology utilized in each of the four systems.

(7) The student knows the systems that finance health care in a free enterprise society. The student is expected to:

- (A) compare and contrast hospice, health maintenance organizations, preferred provider organizations, and other care providers;
- (B) research and describe escalating health care costs and identify individual responsibility in cost containment; and
- (C) research and describe industry efforts in cost containment, energy conservation, and accountability practices.

(8) The student uses technology to access, process, and retrieve information. The student is expected to:

- (A) utilize keyboarding skills to access, process, and retrieve information; and

- (B) describe technology applications in the health care industry.

§121.3. Health Science Technology I (One to Two Credits).

(a) General requirements. This course is recommended for students in Grades 9-12. The recommended prerequisites for this course are Introduction to Health Science Technology and Biology, as a prerequisite or concurrent enrollment.

(b) Introduction.

(1) To pursue a career in health care, students should know how to learn, reason, think critically, make decisions, solve problems, and communicate effectively. Students should understand that quality health care depends on the ability to work well with others.

(2) The health care industry is comprised of diagnostic, therapeutic, informational, and environmental systems that function individually and collaboratively to provide comprehensive health care. Students should understand the employment opportunities, technology, and safety requirements of each system. Students are expected to learn the knowledge and skills necessary to pursue a health career through further education and/or employment.

(3) Professional integrity in health care is dependent on acceptance of ethical and legal responsibilities. Students are expected to understand their ethical and legal responsibilities, limitations, and the implications of their actions.

(c) Knowledge and skills.

(1) The student applies math, science, English language arts, and social studies in health science. The student is expected to:

- (A) convert units between systems of measurements;
- (B) use measurement functions for client assessment;
- (C) interpret technical material related to health care;
- (D) demonstrate use of precise language to clearly communicate ideas;
- (E) plan and prepare effective oral presentations;
- (F) describe biological and chemical processes that maintain homeostasis;
- (G) identify principles of body mechanics and movement;
- (H) analyze forces and the effects of movement, torque, tension, and elasticity on the human body;

(I) analyze the impact of local, state, and national government on the health care industry; and

(J) compare and contrast strategies used by various cultures to solve problems related to health.

(2) The student knows verbal and nonverbal communication skills. The student is expected to:

- (A) identify components of effective communication;
- (B) identify barriers to effective communication;
- (C) evaluate the use of verbal and nonverbal language in a variety of health care scenarios;

(D) adapt communication to the needs of the individual in a diverse society;

(E) develop communication skills that are responsive rather than reactive;

(F) accurately interpret, transcribe, and communicate medical vocabulary; and

(G) demonstrate use of appropriate telecommunications technology.

(3) The student documents and archives client records. The student is expected to:

(A) review the structure and composition of client records;

(B) compile and record client data; and

(C) demonstrate the ability to chart and graph.

(4) The student knows professional characteristics as defined by the health care industry. The student is expected to:

(A) identify professional characteristics of health care providers; and

(B) describe employer expectations such as communication, organizational skills, and productive work habits.

(5) The student knows career options and the preparation necessary for employment in the health care industry. The student is expected to:

(A) locate, evaluate, and interpret career options and employment information;

(B) demonstrate the procedures necessary to seek and secure employment;

(C) demonstrate step-by-step procedures for problem solving;

(D) predict the impact of career decisions; and

(E) anticipate and adapt to changing employment situations.

(6) The student knows the skills necessary to maintain employment. The student is expected to:

(A) identify employer expectations of punctuality, attendance, and time management;

(B) identify industry safety standards; and

(C) demonstrate appropriate actions in emergency situations.

(7) The student knows ethical behavior standards and legal responsibilities. The student is expected to:

(A) recognize ethical behavior standards;

(B) identify ethical considerations resulting from technological advances;

(C) describe the effects of unethical practices on consumers;

(D) demonstrate the principles of confidentiality;

(E) identify legal requirements and scope of practice for students in health care delivery;

(F) recognize noncompliance and its effects; and

(G) identify issues related to malpractice, negligence, and liability.

(8) The student knows client's rights and choices. The student is expected to:

(A) evaluate situations related to client autonomy;

(B) review documentation related to client's rights and choices; and

(C) develop awareness of age, cultural, and religious diversity as it relates to client care.

(9) The student identifies the leadership skills necessary to function in a democratic society. The student is expected to:

(A) demonstrate leadership skills for goal setting and team building; and

(B) demonstrate the ability to conduct effective meetings according to *Robert's Rules of Order, Newly Revised*.

(10) The student uses standard precautions to control the spread of infection. The student is expected to:

(A) identify the cycle of the infectious process;

(B) identify guidelines of standard precautions; and

(C) demonstrate skills related to infection control.

(11) The student knows the importance of maintaining a safe environment and eliminating hazardous situations. The student is expected to:

(A) identify regulatory agencies such as Occupational Safety and Health Administration (OSHA) and Food and Drug Administration (FDA);

(B) identify legislation that mandates an employer's obligation to provide a safe workplace;

(C) identify fire prevention and safety practices;

(D) recognize hazardous materials and situations;

(E) demonstrate safe use of chemicals and equipment;

(F) identify, demonstrate, and practice principles of body mechanics; and

(G) practice personal and client safety.

(12) The student knows the technology utilized in the diagnostic, therapeutic, informational, and environmental systems. The student is expected to:

(A) identify equipment utilized in each of the four systems;

(B) utilize appropriate equipment in the delivery of health care services; and

(C) recognize and report equipment malfunctions.

(13) The student demonstrates multi-competent health care worker knowledge and skills. The student is expected to:

- (A) assess client status and accurately determine vital signs;
- (B) move, lift, and transport clients safely;
- (C) manage client hygiene;
- (D) monitor client nutrition;
- (E) respond to emergencies appropriately;
- (F) demonstrate skills related to activities of daily living;
- (G) demonstrate skills associated with rehabilitative care such as range of motion, positioning, and ambulation;
- (H) evaluate techniques in dealing with stressful situations, such as trauma and death and dying;
- (I) demonstrate skills in caring for the dying patient;
- (J) manage client information appropriately; and
- (K) evaluate environmental management procedures.

(14) The student uses technology to access, process, and retrieve information. The student is expected to:

- (A) enhance keyboarding skills and correspond using electronic messages;
- (B) identify the processes for collection and dissemination of health care data; and
- (C) predict changes in technology.

§121.4. Health Science Technology II (Two to Four Credits).

(a) General requirements. This course is recommended for students in Grades 11-12. Recommended prerequisites for this course are Health Science Technology I, Biology, and Chemistry.

(b) Introduction.

(1) To pursue a career in health care, students should know how to learn, reason, think critically, make decisions, solve problems, and communicate effectively. Students should understand that quality health care depends on the ability to work well with others.

(2) The health care industry is comprised of diagnostic, therapeutic, informational, and environmental systems that function individually and collaboratively to provide comprehensive health care. Students should understand the employment opportunities, technology, and safety requirements of each system. Students are expected to learn the knowledge and skills necessary to pursue a health career through further education and/or employment.

(3) Professional integrity in health care is dependent on acceptance of ethical and legal responsibilities. Students are expected to understand their ethical and legal responsibilities, limitations, and the implications of their actions.

(c) Knowledge and skills.

(1) The student applies math, science, English language arts, and social studies in health science. The student is expected to:

- (A) perform mathematical calculations appropriate to work-based learning situations;

- (B) use measurement functions in multiple-step conversion problems;
- (C) communicate medical terminology;
- (D) express ideas in writing and develop skills in documentation;
- (E) interpret complex technical material related to health care;
- (F) use multiple methods of presenting information, such as client teaching;
- (G) assess biological and chemical processes that maintain homeostasis;
- (H) associate the disease process with changes in homeostasis;
- (I) identify the changes in structure and function due to trauma and disease;
- (J) research and describe community health care resources; and
- (K) research and describe the role of an international society in the prevention and containment of disease.

(2) The student uses verbal and non-verbal communication skills. The student is expected to:

- (A) use language appropriate to the situation;
- (B) evaluate client's ability to understand communication;
- (C) identify language barriers and select alternative methods of communication;
- (D) adapt communication to accommodate individual needs;
- (E) practice verbal and nonverbal skills when communicating with persons with hearing and vision loss; and
- (F) utilize telecommunication technology with appropriate supervision.

(3) The student documents and archives data. The student is expected to:

- (A) retrieve information from client records;
- (B) report client information according to facility protocol; and
- (C) review and summarize technical reports.

(4) The student knows career options and the preparation necessary for employment in the health care industry. The student is expected to:

- (A) research and describe specific health careers;
- (B) demonstrate procedures to gain employment;
- (C) identify entrepreneurship opportunities in the free enterprise system; and
- (D) practice personal finance management.

(5) The student solves problems and makes decisions. The student is expected to:

(A) demonstrate step-by-step procedures for problem solving;

(B) predict the impact of decisions on client care; and

(C) demonstrate appropriate response to emergency situations.

(6) The student knows the knowledge and skills necessary to maintain employment. The student is expected to:

(A) comply with specific industry standards related to safety and substance abuse;

(B) fulfill attendance and punctuality expectations;

(C) articulate understanding of assignment;

(D) utilize medical vocabulary specific to the health care setting;

(E) apply principles of time management when performing tasks; and

(F) fulfill industry expectations related to professional conduct.

(7) The student knows ethical behavior standards and legal responsibilities. The student is expected to:

(A) identify ethical dilemmas such as Do Not Resuscitate (DNR);

(B) comply with ethical behavior standards;

(C) comply with industry standards of confidentiality;

(D) comply with protocol of the health care setting;

(E) comply with legal requirements and function within the designated scope of practice; and

(F) comply with the client's Bill of Rights.

(8) The student knows the leadership skills necessary to function in a democratic society. The student is expected to:

(A) identify leadership skills of health care professionals;

(B) research and describe the role of professional organizations in maintaining standards;

(C) participate in group dynamics;

(D) identify consensus-building techniques;

(E) use problem-solving skills to resolve conflicts;

(F) identify procedures for due process; and

(G) use parliamentary procedure to conduct meetings.

(9) The student uses standard precautions to control the spread of infection. The student is expected to:

(A) comply with standard precautions; and

(B) practice prescribed techniques to prevent nosocomial infections.

(10) The student maintains a safe environment to prevent hazardous situations. The student is expected to:

(A) identify and practice fire prevention according to facility protocol;

(B) maintain personal and client safety;

(C) apply principles of body mechanics to minimize personal and client injury;

(D) observe and report unsafe conditions; and

(E) follow protocol related to hazardous materials and situations.

(11) The student knows wellness strategies for the prevention of disease. The student is expected to:

(A) research and describe wellness strategies for the prevention of disease;

(B) identify the availability of health screenings and examinations; and

(C) research and describe alternative health practices and therapies.

(12) The student demonstrates skills in monitoring client health status during therapeutic and diagnostic procedures. The student is expected to:

(A) observe client during care and procedures;

(B) accurately measure and report client vital signs and other indicators of health status; and

(C) record client health status according to facility protocol.

(13) The student follows the steps of diagnostic procedural set-ups. The student is expected to:

(A) identify and collect appropriate supplies and equipment necessary for a procedure;

(B) explain procedure to the client;

(C) maintain and calibrate equipment to monitor quality; and

(D) report abnormal results and take action.

(14) The student demonstrates information management skills. The student is expected to:

(A) use technology to access, process and retrieve information with appropriate supervision;

(B) perform admission, discharge, and transfer functions;

(C) accurately complete a variety of informational forms; and

(D) perform data entry skills to process client information.

(15) The student maintains a clean and healthy environment. The student is expected to:

(A) monitor, observe, and report unsafe environmental conditions;

(B) prevent the spread of pathogens by cleaning, disinfecting, or sterilizing;

(C) maintain a sanitary food service environment and practice proper food handling procedures;

(D) conform to Occupational Safety and Health Administration (OSHA) standards and other regulatory guidelines; and

(E) practice recycling and waste management for containment costs and environmental protection.

(16) The student demonstrates knowledge and skills specific to an occupational system. The student is expected to:

(A) know information specific to occupational areas; and

(B) perform occupationally-specific skills according to industry standards.

(17) The student identifies equipment used in the health care industry. The student is expected to:

(A) identify electronic equipment used in diagnostic, therapeutic, informational, and environmental systems;

(B) use appropriate equipment in the delivery of health care services; and

(C) demonstrate problem-solving skills to repair, maintain, and operate equipment consistent with level of training.

§121.5. Health Science Technology III (One to Two Credits).

(a) General requirements. This course may be offered for one or two semesters. This course is recommended for students in Grades 11-12. The recommended prerequisite for this course is Health Science Technology II.

(b) Introduction.

(1) To pursue a career in health care, students should know how to learn, reason, think critically, make decisions, solve problems, and communicate effectively. Students should understand that quality health care depends on the ability to work well with others.

(2) The health care industry is comprised of diagnostic, therapeutic, informational, and environmental systems that function individually and collaboratively to provide comprehensive health care. Students should understand the employment opportunities, technology, and safety requirements of each system. Students are expected to learn the knowledge and skills necessary to pursue a health career through further education and/or employment.

(3) Professional integrity in health care is dependent on acceptance of ethical and legal responsibilities. Students are expected to understand their ethical and legal responsibilities, limitations, and the implications of their actions.

(c) Knowledge and skills.

(1) The student applies math, science, English language arts, and social sciences in health science. The student is expected to:

(A) interpret data from various sources to make conclusions;

(B) compile information from a variety of sources to create a technical report;

(C) research, write, and present a technical report;

(D) plan, prepare, and deliver a presentation;

(E) identify the environmental factors that affect homeostasis;

(F) observe and relate anatomical structure to physiological functions;

(G) identify atypical anatomy and physiology;

(H) use the scientific method to prepare clinical case studies;

(I) compare and contrast community health issues of the United States with other countries; and

(J) compare and contrast various health care reform plans.

(2) The student uses verbal and non-verbal communication skills. The student is expected to:

(A) accurately describe observations and procedures related to client care;

(B) demonstrate advanced communication skills to provide quality client care; and

(C) identify barriers to communication and take measures to minimize their effects.

(3) The student knows the knowledge and skills necessary to maintain employment. The student is expected to:

(A) monitor and evaluate his/her own performance to ensure continuous improvement;

(B) adjust career goals based on personal interests and clinical experiences;

(C) describe the steps necessary for entrepreneurship in a free enterprise system;

(D) identify and follow procedures for advancement, resignation, or relocation;

(E) transfer knowledge and skills to new situations and apply problem-solving strategies;

(F) demonstrate proficiency in medical terminology; and

(G) update skills to enhance employability.

(4) The student knows ethical behavior standards and legal responsibilities. The student is expected to:

(A) practice ethical behavior standards;

(B) comply with industry standards of confidentiality;

(C) comply with protocol and legal requirements and perform within the designated scope of practice; and

(D) review court cases related to professional liability and ethics.

(5) The student knows the importance of functioning as a health care team member. The student is expected to:

(A) participate in team teaching;

- (B) refine consensus-building techniques;
- (C) manage conflicts using peer mediation, problem-solving, and negotiation skills; and
- (D) identify leadership opportunities in the community.

(6) The student maintains a safe environment to prevent hazardous situations. The student is expected to:

- (A) comply with standard precautions;
- (B) teach principles of body mechanics to others;
- (C) develop a fire prevention plan;
- (D) respond to emergency situations consistent with level of training;
- (E) participate in a disaster drill; and
- (F) comply with regulatory standards and guidelines.

(7) The student demonstrates multi-competent health care worker knowledge and skills. The student is expected to:

- (A) identify knowledge and skills that are transferable among occupations;
- (B) predict client's needs for follow-up or alternative care;
- (C) update skills to enhance employability; and
- (D) identify emerging technologies in the health care industry.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 15, 1997.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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For further information, please call: (512) 463-9701



Subchapter B. Scientific, High School

19 TAC §§121.11-121.15

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§121.11. Implementation of Texas Essential Knowledge and Skills for Health Science Technology Education, Scientific.

The provisions of this chapter shall supersede §75.84 of this title (relating to Health Occupations Education) beginning September 1, 1998.

§121.12. Scientific Research and Design (One Science Credit).

(a) General requirements. The prerequisite for this course is one unit of high school science. To receive credit in science, students

must meet the 40% laboratory and fieldwork requirement identified in §74.3(b)(2)(C) of this title (relating to Description of a Required Secondary Curriculum). This course is recommended for students in Grade 11 or 12.

(b) Introduction.

(1) Science is a way of learning about the natural world. Students should know how science has built a vast body of changing and increasing knowledge described by physical, mathematical, and conceptual models, and that science may not answer all questions.

(2) A system is a collection of cycles, structures, and processes that interact. Students should understand a whole in terms of its components and how these components relate to each other and to the whole. All systems have basic properties that can be described in terms of space, time, energy and matter. Change and constancy occur in systems and can be observed and measured as patterns. These patterns help to predict what will happen next and can change over time.

(3) Investigations are used to learn about the natural world through questioning, observing and drawing conclusions. Students should understand that certain types of questions can be answered by investigations, and that conclusions and models built from these investigations change as new observations are made. Models of objects and events are tools for understanding the natural world and can show how systems work. They have limitations and, based on new discoveries, are constantly being changed to more closely reflect the physical world.

(c) Knowledge and skills.

(1) The student conducts laboratory investigations and fieldwork using safe, environmentally appropriate, and ethical practices. The student is expected to:

(A) demonstrate safe practices during laboratory investigations and fieldwork; and

(B) make wise choices in the conservation and use of resources and the disposal of materials.

(2) The student identifies scientific methods used during fieldwork and laboratory investigations. The student is expected to:

(A) plan and implement investigative procedures including asking questions, formulating testable hypotheses, and selecting equipment and technology;

(B) collect data by observing and measuring in various ways;

(C) organize, analyze, evaluate, make inferences, and predict trends from data; and

(D) communicate valid conclusions.

(3) The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to:

(A) analyze, review, and critique hypotheses and theories as to their strengths and weaknesses using scientific evidence and information;

(B) make responsible choices in selecting everyday products and services using scientific information;

(C) evaluate the impact of research on scientific thought, society, and the environment; and

(D) gather information about future careers using a variety of sources.

(4) The student knows how to formulate hypotheses to guide experimentation and data collection. The student is expected to:

(A) perform background research with respect to an investigative problem; and

(B) examine hypotheses generated to guide a research process, evaluating the merits and feasibility of the hypotheses.

(5) The student knows how to analyze published research. The student is expected to:

(A) identify the scientific methodology used by a researcher;

(B) examine a prescribed research design and identify dependent and independent variables;

(C) evaluate a prescribed research design to determine the purpose for each of the procedures performed; and

(D) compare the relationship of the hypothesis to the conclusion.

(6) The student knows how to develop and implement investigative designs. The student is expected to:

(A) interact and collaborate with scientific researchers and/or other members of the scientific community to complete a research project;

(B) identify and manipulate relevant variables within research situations;

(C) use a control in an experimental process; and

(D) design procedures to test hypotheses.

(7) The student knows how to collect, organize, and evaluate qualitative and quantitative data obtained through experimentation. The student is expected to:

(A) record observations and events as they occur within an investigation;

(B) acquire, manipulate, and analyze data using equipment and technology;

(C) construct data tables to organize information collected in an experiment; and

(D) evaluate data using statistical methods to recognize patterns, trends, and proportional relationships.

(8) The student knows how to synthesize valid conclusions from qualitative and quantitative data. The student is expected to:

(A) synthesize conclusions supported by research data;

(B) consider and communicate alternative explanations for observations and results; and

(C) identify limitations within the research process and provide recommendations for additional research.

(9) The student knows how to communicate conclusions clearly and concisely to an audience of professionals. The student is expected to:

(A) construct charts, tables, and graphs in facilitating data analysis and in communicating experimental results clearly and effectively using technology; and

(B) suggest alternative explanations from observations or trends evident within the data or from prompts provided by a review panel.

§121.13. Anatomy and Physiology of Human Systems (One Science Credit).

(a) General requirements. The prerequisites for this course are Biology and Chemistry. To receive credit in science, students must meet the 40% laboratory and fieldwork requirement identified in §74.3(b)(2)(C) of this title (relating to Description of a Required Secondary Curriculum). This course is recommended for students in Grade 11 or 12.

(b) Introduction.

(1) Science is a way of learning about the natural world. Students should know how science has built a vast body of changing and increasing knowledge described by physical, mathematical, and conceptual models, and that science may not answer all questions.

(2) A system is a collection of cycles, structures, and processes that interact. Students should understand a whole in terms of its components and how these components relate to each other and to the whole. All systems have basic properties that can be described in terms of space, time, energy and matter. Change and constancy occur in systems and can be observed and measured as patterns. These patterns help to predict what will happen next and can change over time.

(3) Investigations are used to learn about the natural world through questioning, observing and drawing conclusions. Students should understand that certain types of questions can be answered by investigations, and that conclusions and models built from these investigations change as new observations are made. Models of objects and events are tools for understanding the natural world and can show how systems work. They have limitations and, based on new discoveries, are constantly being changed to more closely reflect the physical world.

(c) Knowledge and skills.

(1) The student conducts laboratory investigations and fieldwork using safe, environmentally appropriate, and ethical practices. The student is expected to:

(A) demonstrate safe practices during laboratory investigations and in fieldwork; and

(B) make wise choices in the conservation and use of resources and the disposal of materials.

(2) The student uses scientific methods during fieldwork and laboratory investigations. The student is expected to:

(A) plan and implement investigative procedures including asking questions, formulating testable hypotheses, and selecting equipment and technology;

(B) make observations and measurements in collecting data in various ways;

(C) organize, analyze, evaluate, make inferences, and predict trends from data; and

(D) communicate valid conclusions.

(3) The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to:

(A) analyze, review, and critique hypotheses and theories as to their strengths and weaknesses using scientific evidence and information;

(B) make choices in selecting everyday products using scientific research findings;

(C) evaluate the impact of research on scientific thought, society, and the environment;

(D) gather information about future careers using a variety of sources; and

(E) research and describe the history of science and contributions of scientists.

(4) The student knows the energy needs of the human body and the processes through which these needs are fulfilled. The student is expected to:

(A) analyze and explain the chemical reactions that provide energy for the body;

(B) identify the means, including the structure and function of the digestive system, by which energy is processed and stored within the body; and

(C) analyze the effects of energy deficiencies in malabsorption disorders such as diabetes, hypothyroidism, and Crohn's disease.

(5) The student knows the responses of the human body to internal and external forces. The student is expected to:

(A) interpret normal and abnormal contractility conditions such as in edema, glaucoma, aneurysms, and hemorrhage;

(B) analyze and describe the effects of pressure, movement, torque, tension, and elasticity on the human body;

(C) conduct an investigation to determine causes and effects of force variance, and communicate findings;

(D) survey and report the uses of various diagnostic and therapeutic technologies; and

(E) explain how coordination of muscles, bones, and joints allows movement of the body.

(6) The student knows the body processes that maintain homeostasis. The student is expected to:

(A) investigate and describe the integration of the chemical and physical processes, including equilibrium, temperature, pH balance, chemical reactions, passive and active transport, and biofeedback, that contribute to homeostasis; and

(B) predict the consequences of the failure to maintain homeostasis.

(7) The student knows the electrical conduction processes and interactions. The student is expected to:

(A) illustrate conduction systems such as nerve transmission or muscle stimulation;

(B) research and describe the therapeutic uses and effects of external sources of electricity on the body system; and

(C) evaluate the application of advanced technologies such as electroencephalogram (EEG), electrocardiogram (ECG), bionics, transcutaneous electrical nerve stimulation (TENS), and cardioversion.

(8) The student knows the body's transport systems. The student is expected to:

(A) analyze the physical, chemical, and biological properties of transport systems including circulatory, respiratory, and excretory;

(B) identify and describe the factors that alter the normal functions of transport systems; and

(C) compare the interactions among the transport systems.

(9) The student knows environmental factors that affect the human body. The student is expected to:

(A) identify the effects of environmental factors, such as climate, pollution, radioactivity, chemicals, electromagnetic fields, pathogens, carcinogens, and drugs on body systems; and

(B) research and evaluate measures to minimize harmful environmental factors on body systems.

(10) The student knows how to compare anatomical structures to physiological functions. The student is expected to:

(A) analyze the relationships between the anatomical structures and physiological functions of systems such as integumentary, reproductive, nervous, and digestive;

(B) evaluate the cause and effect of disease, trauma and congenital defects on the structure and function of cells, tissues, organs, and systems;

(C) research and evaluate technological advances and limitations in the treatment of system disorders; and

(D) identify characteristics of the aging process on body systems.

(11) The student knows the process of reproduction, growth, and development. The student is expected to:

(A) research and describe embryological development of tissues, organs, and systems;

(B) identify the functions of the male and female reproductive systems; and

(C) summarize the human development cycle.

§121.14. Medical Microbiology (One-Half Science Credit).

(a) General requirements. The prerequisites are Biology and Chemistry or Biology and concurrent enrollment in Chemistry. To receive credit in science, students must meet the 40% laboratory and fieldwork requirement identified in §74.3(b)(2)(C) of this title

(relating to Description of a Required Secondary Curriculum). This course is recommended for students in Grade 11 or 12.

(b) Introduction.

(1) Science is a way of learning about the natural world. Students should know how science has built a vast body of changing and increasing knowledge described by physical, mathematical, and conceptual models, and that science may not answer all questions.

(2) A system is a collection of cycles, structures, and processes that interact. Students should understand a whole in terms of its components and how these components relate to each other and to the whole. All systems have basic properties that can be described in terms of space, time, energy and matter. Change and constancy occur in systems and can be observed and measured as patterns. These patterns help to predict what will happen next and can change over time.

(3) Investigations are used to learn about the natural world through questioning, observing and drawing conclusions. Students should understand that certain types of questions can be answered by investigations, and that conclusions and models built from these investigations change as new observations are made. Models of objects and events are tools for understanding the natural world and can show how systems work. They have limitations and, based on new discoveries, are constantly being changed to more closely reflect the physical world.

(c) Knowledge and skills.

(1) The student conducts laboratory investigations and fieldwork using safe, environmentally appropriate, and ethical practices. The student is expected to:

(A) demonstrate safe practices in laboratory investigations and in fieldwork, including clinical settings, while complying with standard precautions;

(B) make wise choices in the conservation and use of resources and the disposal of materials; and

(C) identify regulatory agencies and comply with standards and guidelines.

(2) The student uses scientific methods in fieldwork and laboratory investigations. The student is expected to:

(A) plan and implement investigative procedures including but not limited to asking questions, formulating testable hypotheses, and selecting equipment and technology;

(B) make observations and measurements in collecting data;

(C) organize, analyze, evaluate, make inferences, and predict trends from data; and

(D) communicate valid conclusions.

(3) The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to:

(A) analyze, review, and critique hypotheses and theories as to their strengths and weaknesses using scientific evidence and information;

(B) make choices in selecting everyday products and services using scientific information;

(C) evaluate the impact of research on scientific thought, society, and the environment;

(D) gather information about future careers using a variety of sources;

(E) solve calculations involving probability, dilutions, conversions, and exponential growth;

(F) determine mass, volume, and density using measurement functions; and

(G) research and describe the history of science and contributions of scientists.

(4) The student knows the relationship between microbes and health maintenance. The student is expected to:

(A) research and describe the historical development of microbiology as it relates to health care;

(B) identify chemical processes of microorganisms;

(C) identify the morphology and characteristics of microorganisms using a variety of microbiological techniques;

(D) determine the factors required for microbial reproduction and growth; and

(E) identify beneficial microbes that colonize the human body.

(5) The student knows the role of microbes in infectious diseases. The student is expected to:

(A) research and describe the infectious process;

(B) classify microorganisms using a dichotomous key;

(C) identify diseases caused by bacteria, fungi, viruses, protozoa, rickettsias, and helminths;

(D) identify the body's immune response and defenses against infection; and

(E) evaluate the effects of anti-microbial agents.

§121.15. Pathophysiology (One-Half Science Credit).

(a) General requirements. The prerequisites for this course are Biology, Chemistry, and Anatomy, and Physiology of Human Systems. To receive credit in science, students must meet the 40% laboratory and fieldwork requirement identified in §74.3(b)(2)(C) of this title (relating to Description of a Required Secondary Curriculum). This course is recommended for students in Grade 11 or 12.

(b) Introduction.

(1) Science is a way of learning about the natural world. Students should know how science has built a vast body of changing and increasing knowledge described by physical, mathematical, and conceptual models, and that science may not answer all questions.

(2) A system is a collection of cycles, structures, and processes that interact. Students should understand a whole in terms of its components and how these components relate to each other and to the whole. All systems have basic properties that can be described in terms of space, time, energy and matter. Change and constancy occur in systems and can be observed and measured as patterns. These patterns help to predict what will happen next and can change over time.

(3) Investigations are used to learn about the natural world through questioning, observing and drawing conclusions. Students should understand that certain types of questions can be answered by investigations, and that conclusions and models built from these investigations change as new observations are made. Models of objects and events are tools for understanding the natural world and can show how systems work. They have limitations and, based on new discoveries, are constantly being changed to more closely reflect the physical world.

(c) Knowledge and skills.

(1) The student conducts laboratory investigations and fieldwork using safe, environmentally appropriate, and ethical practices. The student is expected to:

(A) demonstrate safe practices during laboratory investigations and in fieldwork; and

(B) make wise choices in the conservation and use of resources and the disposal of materials.

(2) The student uses scientific methods in fieldwork and laboratory investigations. The student is expected to:

(A) plan and implement investigative procedures including but not limited to asking questions, formulating testable hypotheses, and selecting equipment and technology;

(B) make observations and measurements in collecting data;

(C) organize, analyze, evaluate, make inferences, and predict trends from data; and

(D) communicate valid conclusions.

(3) The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to:

(A) analyze, review, and critique hypotheses and theories as to their strengths and weaknesses using scientific evidence and information;

(B) make responsible choices in selecting everyday products and services using scientific information;

(C) evaluate the impact of research on scientific thought, society, and the environment;

(D) gather information about future careers using a variety of sources; and

(E) research and describe the history of science and contributions of scientists.

(4) The student knows the mechanisms of pathology. The student is expected to:

(A) identify biological and chemical processes at the cellular level;

(B) analyze how the body attempts to maintain homeostasis when changes occur;

(C) detect changes resulting from mutations and neoplasms by examining cells, tissues, organs, and systems;

(D) identify factors that contribute to disease, such as age, gender, environment, lifestyles, and heredity; and

(E) evaluate stages in the progression of disease.

(5) The student knows the process of pathogenesis. The student is expected to:

(A) identify pathogenic organisms using technology;

(B) illustrate the stages of pathogenesis including incubation period, symptomatic period, and exacerbation or remission;

(C) analyze the body's natural defense systems against infection such as barriers, the inflammatory response, and the immune response; and

(D) evaluate the effects of chemical agents, environmental pollution, and trauma on the disease process.

(6) The student knows a variety of human diseases. The student is expected to:

(A) research and report on the nature of diseases according to etiology, signs and symptoms, diagnosis, prognosis, and treatment options;

(B) research and report advanced technologies for the diagnosis and treatment of disease;

(C) identify and describe congenital disorders and childhood diseases; and

(D) research and explain how diseases affect multiple body systems.

(7) The student knows the effects of disease prevention and control. The student is expected to:

(A) evaluate public-health issues related to asepsis, isolation, immunization, and quarantine;

(B) analyze the effects of stress and aging on the body;

(C) evaluate treatment options for diseases;

(D) research and describe diseases that threaten world health and propose intervention strategies; and

(E) develop a plan for personal health and wellness.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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For further information, please call: (512) 463-9701



Subchapter C. Integrated Occupational, High School

19 TAC §§121.21-121.26

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§121.21. Implementation of Texas Essential Knowledge and Skills for Health Science Technology Education, Integrated Occupational.

The provisions of this chapter shall supersede §75.84 of this title (relating to Health Occupations Education) beginning September 1, 1998.

§121.22. Medical Terminology (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction.

(1) To pursue a career in health care, students should know how to learn, reason, think critically, make decisions, solve problems, and communicate effectively. Students should understand that quality health care depends on the ability to work well with others.

(2) The health care industry is comprised of diagnostic, therapeutic, informational, and environmental systems that function individually and collaboratively to provide comprehensive health care. Students should understand the employment opportunities, technology, and safety requirements of each system. Students are expected to learn the knowledge and skills necessary to pursue a health career through further education and/or employment.

(3) Professional integrity in health care is dependent on acceptance of ethical and legal responsibilities. Students are expected to understand their ethical and legal responsibilities, limitations, and the implications of their actions.

(c) Knowledge and skills.

(1) The student knows the terminology related to health care. The student is expected to:

(A) identify abbreviations, acronyms, and symbols;

(B) identify the basic structure of medical words;

(C) practice word-building skills;

(D) research the origins of eponyms;

(E) use directional terms and anatomical planes related to body structure; and

(F) accurately spell and define occupationally specific terms relating to body systems, surgical and diagnostic procedures, diseases, and treatments.

(2) The student knows how to communicate using the terminology applicable to the health care industry. The student is expected to:

(A) use appropriate verbal and written strategies to meet the demands of the speaker, audience, purpose, and occasion;

(B) correctly pronounce medical terms;

(C) employ increasingly precise language to communicate;

(D) evaluate the use of verbal and written language in a variety of health care scenarios; and

(E) read and interpret technical material related to health care.

(3) The student uses available resources. The student is expected to:

(A) use medical and dental dictionaries and multimedia resources;

(B) use resources to interpret technical materials; and

(C) utilize electronic media such as the Internet and other telecommunications, with appropriate supervision.

(4) The student appropriately uses health care terms. The student is expected to:

(A) accurately interpret, transcribe, and communicate vocabulary related to health care;

(B) translate medical terms to conversational language to facilitate communication; and

(C) report observations using medical terminology.

§121.23. Gerontology (One-Half Credit).

(a) General requirements. The recommended prerequisite for this course is Health Science Technology I. This course is recommended for students in Grades 10-12.

(b) Introduction.

(1) To pursue a career in health care, students should know how to learn, reason, think critically, make decisions, solve problems, and communicate effectively. Students should understand that quality health care depends on the ability to work well with others.

(2) The health care industry is comprised of diagnostic, therapeutic, informational, and environmental systems that function individually and collaboratively to provide comprehensive health care. Students should understand the employment opportunities, technology, and safety requirements of each system. Students are expected to learn the knowledge and skills necessary to pursue a health career through further education and/or employment.

(3) Professional integrity in health care is dependent on acceptance of ethical and legal responsibilities. Students are expected to understand their ethical and legal responsibilities, limitations, and the implications of their actions.

(c) Knowledge and skills.

(1) The student applies math, science, English language arts, and social studies in health science. The student is expected to:

(A) research and describe myths regarding aging;

(B) review a variety of cultural responses to aging;

(C) identify the sociological impact of a "graying" America on health care delivery by performing an analysis of predictions into the 21st century;

(D) research and describe the social services available to older adults;

(E) identify the psychological aspects of aging including coping, adaptation, depression, and suicide; and

(F) describe individual responses to death and dying and review the Dying Person's Bill of Rights.

(2) The student identifies the aging process. The student is expected to:

(A) identify the patterns of change in the aging individual;

(B) identify physiological changes related to disease, environmental factors, and chronological age;

(C) identify the impact of age on outcomes of frequently occurring diseases;

(D) compare and contrast genetic and non-genetic theories of aging;

(E) identify the effects of aging on intelligence, learning, and memory;

(F) identify the nutritional needs of older adults; and

(G) identify pharmaceutical concerns with older persons including drug interactions from multiple medications.

(3) The student uses communication skills appropriate for geriatrics. The student is expected to:

(A) learn vocabulary associated with geriatrics;

(B) communicate with older adults and their families;

(C) interpret verbal and nonverbal messages and provide appropriate feedback;

(D) adapt communication to the needs of the aging person who has sensory or mental impairment; and

(E) interpret technical material related to gerontology.

(4) The student knows ethical behavior standards and legal responsibilities. The student is expected to:

(A) identify resident's rights and choices;

(B) review ethical dilemmas related to older adults; and

(C) comply with ethical behavior standards.

(5) The student maintains a safe environment to prevent hazardous situations. The student is expected to:

(A) identify and practice fire prevention according to facility protocol;

(B) identify protocol to manage hazardous materials;

(C) maintain personal and resident safety in the clinical setting;

(D) observe and report unsafe environmental conditions; and

(E) apply principles of body mechanics to maintain personal and resident safety.

(6) The student uses standard precautions to control the spread of infection. The student is expected to:

(A) demonstrate skills related to infection control;

(B) practice isolation procedures; and

(C) comply with standard precautions.

(7) The student demonstrates the knowledge and skills of a geriatric health care worker. The student is expected to:

(A) assess residents and accurately determine vital signs;

(B) move, lift, and transport residents safely;

(C) assist residents with ambulation aids;

(D) monitor resident nutrition;

(E) manage resident hygiene;

(F) comply with facility protocol for residents' comfort;

(G) maintain resident environment;

(H) respond to emergency situations such as strains and bruises, vomiting and aspirations, syncope, falls, hemorrhage and seizures;

(I) accurately record and report resident information;

(J) care for the dying resident; and

(K) identify skills related to post-mortem care.

(8) The student demonstrates how to prepare for employment in long-term care or other health care settings. The student is expected to:

(A) identify requirements established for certification; and

(B) identify advantages of certification.

(9) The student identifies how to function as a team member in a variety of health care settings. The student is expected to:

(A) participate as a team member; and

(B) use coping skills and practice stress management.

(10) The student identifies electronic equipment used in the health care industry. The student is expected to:

(A) use appropriate equipment in the delivery of health care services;

(B) recognize and report equipment malfunctions; and

(C) maintain and operate equipment consistent with level of training.

§121.24. Clinical Nutrition (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 11-12. The recommended prerequisite for this course is Health Science Technology I.

(b) Introduction.

(1) To pursue a career in health care, students should know how to learn, reason, think critically, make decisions, solve problems, and communicate effectively. Students should understand that quality health care depends on the ability to work well with others.

(2) The health care industry is comprised of diagnostic, therapeutic, informational, and environmental systems that function

individually and collaboratively to provide comprehensive health care. Students should understand the employment opportunities, technology, and safety requirements of each system. Students are expected to learn the knowledge and skills necessary to pursue a health career through further education and/or employment.

(3) Professional integrity in health care is dependent on acceptance of ethical and legal responsibilities. Students are expected to understand their ethical and legal responsibilities, limitations, and the implications of their actions.

(c) Knowledge and skills.

(1) The student applies math, science, English language arts, and social studies in health science. The student is expected to:

- (A) use measurement functions and perform mathematical calculations;
- (B) interpret charts and graphs and technical material;
- (C) identify biological and chemical processes;
- (D) observe and relate anatomical structure to physiological functions, including the disease process;
- (E) research and describe the impact of nutrition on world health;
- (F) describe the impact of government on nutrition programs and services;
- (G) research and describe the historical and future availability of food;
- (H) identify nutritional practices of various cultures and age groups; and
- (I) identify causes of malnutrition.

(2) The student uses verbal and non-verbal communication skills. The student is expected to:

- (A) adapt communication to the needs of the client;
- (B) demonstrate ability in charting and graphing; and
- (C) compile, interpret, and disseminate client information.

(3) The student demonstrates how to gain employment in clinical nutrition. The student is expected to:

- (A) locate, evaluate, and interpret career opportunities;
- (B) identify the role of the nutritional team;
- (C) fulfill attendance, punctuality, and time management expectations; and
- (D) comply with industry standards related to safety and substance abuse.

(4) The student knows ethical behavior standards and legal responsibilities. The student is expected to:

- (A) comply with standards of ethical behavior and legal responsibility; and
- (B) comply with industry standards of confidentiality.

(5) The student maintains a safe environment to prevent hazardous situations. The student is expected to:

- (A) practice personal and client safety;
- (B) review the cycle of the infectious process;
- (C) comply with standards of universal precautions;
- (D) demonstrate safe use of chemicals and equipment;
- (E) recognize hazardous materials;
- (F) identify and practice fire prevention according to facility protocol;
- (G) practice principles of body mechanics;
- (H) identify regulatory agencies such as Food and Drug Administration (FDA), Occupational Safety and Health Administration (OSHA), and public health departments; and
- (I) practice compliance of regulatory standards and guidelines used in food services.

(6) The student assesses and evaluates nutritional practices. The student is expected to:

- (A) select and analyze nutritional information;
- (B) determine nutritional needs of various age groups;
- (C) research and describe nutritional preferences of various cultures;
- (D) recognize nutritional needs of clients;
- (E) research and describe nutritional and eating disorders;
- (F) identify the types of therapeutic diets; and
- (G) describe food additives and food allergies.

(7) The student demonstrates occupationally specific knowledge and skills of the health care worker in the area of nutrition. The student is expected to:

- (A) identify alternative methods of nutrition;
- (B) identify the effects of chemotherapy and radiation on client nutrition;
- (C) identify nutritional needs during pregnancy and lactation;
- (D) demonstrate skills in the assessment of nutritional needs; and
- (E) prepare, implement, and evaluate therapeutic care plans.

(8) The student identifies equipment and technology for nutritional services. The student is expected to:

- (A) use technology to access, process, and retrieve information; and
- (B) use appropriate electronic equipment.

§121.25. *Pharmacology (One-Half Credit).*

(a) General requirements. This course is recommended for students in Grades 11-12. The recommended prerequisites for this course are Health Science Technology I, Biology, and Chemistry.

(b) Introduction.

(1) To pursue a career in health care, students should know how to learn, reason, think critically, make decisions, solve problems, and communicate effectively. Students should understand that quality health care depends on the ability to work well with others.

(2) The health care industry is comprised of diagnostic, therapeutic, informational, and environmental systems that function individually and collaboratively to provide comprehensive health care. Students should understand the employment opportunities, technology, and safety requirements of each system. Students are expected to learn the knowledge and skills necessary to pursue a health career through further education and/or employment.

(3) Professional integrity in health care is dependent on acceptance of ethical and legal responsibilities. Students are expected to understand their ethical and legal responsibilities, limitations, and the implications of their actions.

(c) Knowledge and skills.

(1) The student applies math, science, English language arts, and social studies in health science. The student is expected to:

- (A) convert units between systems of measurement;
- (B) use measurement functions such as calculations of dosages;
- (C) interpret technical material related to pharmacology;
- (D) investigate biological and chemical processes in various age groups;
- (E) analyze the impact of pharmaceuticals on the costs of health care; and
- (F) research and describe the impact of pharmaceuticals on society.

(2) The student identifies career options and the preparation necessary for employment in pharmacology. The student is expected to:

- (A) identify career options related to pharmacology;
- (B) define the role of the pharmacy team; and
- (C) research and describe emerging pharmaceutical careers, such as biotechnology medicine.

(3) The student knows ethical behavior standards and legal responsibilities as related to pharmacology. The student is expected to:

- (A) recognize and describe ethical behavior standards;
- (B) describe the effects of unethical practices on consumers;
- (C) identify the principles of confidentiality;
- (D) identify legal requirements and scope of practice;
- (E) evaluate the effects of noncompliance;
- (F) research and describe issues of malpractice, negligence, and liability; and

(G) describe situations related to client's rights and choices.

(4) The student maintains a safe environment to prevent hazardous situations. The student is expected to:

- (A) identify and practice fire prevention;
- (B) recognize hazardous materials;
- (C) demonstrate safe use of chemicals and equipment;
- (D) practice personal safety; and
- (E) identify regulatory agencies such as Occupational Safety and Health Administration (OSHA), Drug Enforcement Administration (DEA), and Food and Drug Administration (FDA).

(5) The student demonstrates the knowledge and skills related to pharmacology. The student is expected to:

- (A) demonstrate use of drug references including Physicians' Desk Reference (PDR);
- (B) identify drug names, classifications, actions and interactions;
- (C) identify indications and contraindications of drugs;
- (D) identify side effects, toxic effects, and adverse reactions of drugs;
- (E) identify routes of administrations;
- (F) compare and contrast Food and Drug Administration (FDA) approved pharmaceuticals to alternative medicines; and
- (G) accurately interpret, transcribe, and communicate vocabulary.

(6) The student identifies technology used in pharmacology. The student is expected to:

- (A) identify the technology utilized in a variety of health care settings; and
- (B) use technology to access, process, and retrieve information with appropriate supervision.

§121.26. *Mental Health (One-Half Credit).*

(a) General requirements. This course is recommended for students in Grades 11-12. The recommended prerequisites for this course are Health Science Technology I, Biology, and Chemistry.

(b) Introduction.

(1) To pursue a career in health care, students should know how to learn, reason, think critically, make decisions, solve problems, and communicate effectively. Students should understand that quality health care depends on the ability to work well with others.

(2) The health care industry is comprised of diagnostic, therapeutic, informational, and environmental systems that function individually and collaboratively to provide comprehensive health care. Students should understand the employment opportunities, technology, and safety requirements of each system. Students are expected to learn the knowledge and skills necessary to pursue a health career through further education and/or employment.

(3) Professional integrity in health care is dependent on acceptance of ethical and legal responsibilities. Students are expected to understand their ethical and legal responsibilities, limitations, and the implications of their actions.

(c) Knowledge and skills.

(1) The student applies math, science, English language arts, and social studies in health science. The student is expected to:

(A) evaluate the use of verbal and nonverbal language in a variety of mental health scenarios;

(B) describe anatomy, physiology, and pathophysiology of the nervous system;

(C) identify societal perspectives related to mental health;

(D) identify the physiological effects of stress and aging;

(E) research and describe the psychological aspects of health and wellness across the life span;

(F) identify socioeconomic factors that influence mental health and care;

(G) identify social services such as drug dependency rehabilitation centers;

(H) identify maladaptive conditions such as paranoia, schizophrenia, and aggression; and

(I) research and describe treatment options.

(2) The student uses verbal and nonverbal communication skills. The student is expected to:

(A) interpret verbal and nonverbal messages and adapt communication to the needs of the individual;

(B) use listening skills and techniques to minimize communication barriers; and

(C) demonstrate communication skills that are responsive rather than reactive.

(3) The student identifies career options and the preparation necessary for employment in mental health. The student is expected to:

(A) identify career opportunities related to mental health;

(B) practice the concept of teaming;

(C) predict the consequences of decisions;

(D) demonstrate techniques of peer mediation, problem solving, and negotiation;

(E) accurately interpret, transcribe, and communicate medical vocabulary.

(4) The student knows the ethical behavior standards and legal responsibilities related to mental health. The student is expected to:

(A) identify ethical practices;

(B) practice the principles of confidentiality;

(C) research and describe legal aspects and issues of malpractice, negligence, and liability;

(D) identify designated scope of practice of professionals;

(E) define client rights and choices;

(F) review case studies related to client rights and choices;

(G) identify circumstances that alter client rights;

(H) review legislation that effects standards of client care; and

(I) identify regulatory agencies such as the Mental Health and Mental Retardation Agency.

(5) The student maintains a safe environment to prevent hazardous situations. The student is expected to:

(A) identify abusive situations;

(B) anticipate and adapt to changing situations;

(C) demonstrate appropriate actions in emergency situations; and

(D) practice personal and client safety.

(6) The student knows the technology related to information services. The student is expected to:

(A) identify the processes for collection and dissemination of health care data;

(B) identify equipment used in the delivery of mental health services; and

(C) use technology consistent with level of training.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Subchapter D. Research, High School

19 TAC §121.31, §121.32

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§121.31. Implementation of Texas Essential Knowledge and Skills for Health Science Technology Education, Research.

The provisions of this chapter shall supersede §75.84 of this title (relating to Health Occupations Education) beginning September 1, 1998.

§121.32. Health Science Technology Independent Study (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grade 12. The recommended prerequisite for this course is Health Science Technology II.

(b) Introduction.

(1) To pursue a career in health care, students should know how to learn, reason, think critically, make decisions, solve problems, and communicate effectively. Students should understand that quality health care depends on the ability to work well with others.

(2) The health care industry is comprised of diagnostic, therapeutic, informational, and environmental systems that function individually and collaboratively to provide comprehensive health care. Students should understand the employment opportunities, technology, and safety requirements of each system. Students are expected to learn the knowledge and skills necessary to pursue a health career through further education and/or employment.

(3) Professional integrity in health care is dependent on acceptance of ethical and legal responsibilities. Students are expected to understand their ethical and legal responsibilities, limitations, and the implications of their actions.

(c) Knowledge and skills.

(1) The student applies math, science, English language arts, and social studies in health science. The student is expected to:

(A) select an independent study project for personal enrichment and professional development;

(B) collaborate with an interdisciplinary team to develop a project;

(C) identify community, state, national, or international issues to select a project;

(D) conduct a project under the supervision of a mentor;

(E) use scientific methods of investigation;

(F) apply statistical concepts to analyze data, evaluate results, and draw conclusions;

(G) compile findings in a coherent and organized manner; and

(H) present the independent study project to an appropriate audience using a variety of technologies.

(2) The student uses verbal and nonverbal communication skills. The student is expected to:

(A) communicate with others to accomplish project goals;

(B) utilize a variety of resources to access, process, and collect data relevant to the project; and

(C) document the time and cost to accomplish the project goal.

(3) The student knows ethical behavior standards and legal responsibilities. The student is expected to:

(A) identify ethical challenges posed by factors such as cost containment, new and emerging technologies, and allocation of limited resources;

(B) meet expectations related to professional conduct; and

(C) review legal issues related to the project.

(4) The student participates as a team member to complete a project. The student is expected to:

(A) develop skills including consensus, negotiation, decision making, mediation, process analysis, and interviewing; and

(B) participate as a team member to accomplish the project goals.

(5) The student develops a project related to the health care systems. The student is expected to:

(A) identify systems to be used in an independent study project; and

(B) use systems resources to complete a project.

(6) The student identifies the systems that finance health care research in a free enterprise society. The student is expected to:

(A) identify economic issues related to health research; and

(B) identify economic factors associated with the project.

(7) The student uses technology needed to complete a project. The student is expected to:

(A) use technology resources to access, process, retrieve, and disseminate information with appropriate supervision; and

(B) use multimedia technology to present the project to an audience.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Chapter 122. Texas Essential Knowledge and Skills for Home Economics Education

The Texas Education Agency (TEA) adopts new §§122.1, 122.2, 122.11-122.14, 122.21-122.24, 122.31- 122.34, 122.41-122.43, 122.51-122.54, 122.61-122.63, 122.71-122.74, 122.81-122.84, 122.91, 122.92, and 122.101-122.103, concerning home economics education, with changes to the proposed text as published in the February 28, 1997, issue of the *Texas Reg-*

ister (22 TexReg 2136). The new sections establish the essential knowledge and skills for home economics education that primarily focus on families, work, and their interrelationships. The new sections are necessary to ensure that students throughout the state have access to the enrichment curricula. The provisions of these sections shall supersede §75.50(a) of this title (relating to Life Management Skills) and §75.83 of this title (relating to Vocational Home Economics) beginning September 1, 1998.

The Texas Education Code organizes the required curriculum into two types: the foundation curriculum and the enrichment curriculum. As specified in legislation, the essential knowledge and skills of the enrichment curriculum serve as guidelines to school districts in providing instruction. In doing so, some districts may incur costs for professional development and equipment. These potential costs cannot be estimated.

Members of the public expressed concern about adoption of a certificate of initial mastery. Neither the Texas essential knowledge and skills (TEKS) nor any other rule contains reference to, promotes, or establishes a certificate of initial mastery.

The following changes have been made since the sections were proposed.

Numerous editorial changes were made throughout the sections and some topics were reorganized for clarification and simplification. Changes were also made to strengthen verbs and to eliminate references to particular instructional approaches.

Since filing of the proposed sections, legal counsel has advised that since the sections serve as guidelines for instruction, language containing or implying mandates on school districts should be stricken and replaced with more permissive language where necessary. The term "shall" appeared in statements regarding the date of implementation of the provisions for each subchapter and in the amount of course credit to be awarded to a student for successful completion of a course.

The term "capstone" in career and technology education courses has been replaced with the term "independent study" to clarify language. The career and technology education courses consist of an in-depth study of a business/industry that is of particular interest to a student.

Several individuals who testified at the public hearing held on March 4, 1997, stated that the career and technology education essential knowledge and skills contain references to the skills and competencies identified by the Secretary's Commission on Achieving Necessary Skills (SCANS) and thus reflect federal influence. TEA staff has carefully reviewed the sections being adopted for evidence of SCANS skills and competencies. The sections being adopted do not contain specific references to SCANS; however, the sections do contain skills and competencies that are among those recommended by the commission. The curriculum writing teams, members of the SBOE Review Committee, and others who had suggested strengthening the Texas Essential Knowledge and Skills (TEKS) drafts expressed a strong belief that some skills and competencies identified by the SCANS commission are an essential part of an effective curriculum.

For ease of use and consistency across subject areas and to address a comment received from the Vocational Home Economics Teachers Association of Texas, headings organizing the content within each course were repositioned to allow the knowledge and skills statements to be numbered sequentially throughout each course.

The following changes were made to clarify language and in response to comments received from the Vocational Home Economics Teachers Association of Texas. In §122.24 (relating to Services for Older Adults (Two to Three Credits)), the following changes were made. The term "societal" was removed from subsection (c)(4) to read "the student analyzes societal contributions of older adults to society" to remove redundant wording. Also, in subsection (c)(6)(F), the phrase "utilize caregiver techniques promoting positive mental health of older adults" was amended to read "utilize caregiver techniques promoting positive emotional health of older adults."

In §122.42 (relating to Nutrition and Food Science (One-Half Credit)), subsection (c)(6)(D) was amended by removing the language "ethnic and cultural" from the phrase "determine the effects of regional agricultural and technology on ethnic and cultural food choices" to clarify that technology and regional agriculture impact food choices beyond mere ethnic and cultural aspects.

In §122.72 (relating to Apparel (One-Half Credit)), the language in subsection (c)(6)(D) that reads "develop basic skills in apparel production if training for a career in the apparel industry" has been amended to read "apply basic apparel production skills if training for a career in the apparel industry."

In §122.83 (relating to Interior Design (One-Half Credit)), the term "resources" was added to subsection (c)(4)(D) following the word "allocating" in the phrase "propose strategies for controlling costs, allocating resources, and budgeting for acquisition of products to enhance interior environments."

In §122.84 (relating to Housing, Furnishings, and Equipment Production, Management, and Services (Two to Three Credits)), language was amended in subsection (d)(4)(A) to read "describe furniture and equipment used in residential and non-residential applications."

The following comments have been received regarding adoption of the new sections.

Subchapter A. Home Economics Foundation, Middle School.

§122.2. Skills for Living.

Issue: appropriateness of content.

Comment. An individual commented that the language in §122.2(c)(4)(C) that relates to students being expected to "explain how diversity impacts interpersonal relationships" would require teachers to explicitly teach state-directed values and attitudes, which is unacceptable.

Agency Response. The section is not being amended. The intent is to ensure that students have some understanding of how interpersonal relationships can be affected by diversity factors such as gender, age, and cultural background which will not involve mandating values or attitudes.

Comment. An individual commented that the language in §122.2(c)(4)(D) that relates to the student being expected to "propose effective responses to inappropriate behavior in interpersonal relationships" equates to home economics being a course in state-mandated behavior in relationships.

Agency Response. No changes to the proposed section are recommended. The statement does not mandate behavior.

Subchapter C. Family Studies and Human Services, High School.

§122.22. Individual and Family Life (One-Half Credit).

Comment. An individual commented that language in §122.22(c)(5)(F) that relates to students being expected to "discuss functions and roles of dating" would equate to state authorities attempting to enforce "state values."

Agency Response. No changes to the proposed section are recommended. In the context of a student's analysis of relationship development outside of the family as is stated in §122.22(c)(5), discussing functions and roles of dating would not equate to "enforcement of state values."

Comment. An individual commented that language in §122.22(c)(6)(B) relating to students being expected to "determine communication skills and practices that strengthen marriage" would equate to the state's teaching family structures.

Agency Response. No changes to the proposed section are recommended. The statement does not involve teaching family structures.

§122.24. Services for Older Adults (Two to Three Credits).

Comment. The following comments were received from the Vocational Home Economics Teachers Association of Texas regarding §122.24. The association requested that subsection (c)(4) be amended to read "the student analyzes contributions of older adults to society." Also, the association requested that subsection (c)(6)(F) be amended to read "utilize caregiver techniques promoting positive emotional health of older adults." The association commented that this section of the content relates to emotional health rather than mental health needs, which are addressed in another section.

Agency Response. The agency agrees with these comments and has amended the sections.

Subchapter E. Nutrition and Wellness, Food Science and Technology: High School.

§122.42. Nutrition and Food Science (One-Half Credit).

Comment. The Vocational Home Economics Teachers Association of Texas requested that language in §122.42(c)(6)(D) be amended to read "determine the effects of regional agriculture and technology on food choices."

Agency Response. The agency agrees with this comment and has amended the section.

Issue. Promoting group thinking.

Comment. An individual commented that language in §122.42(c)(9)(D) that relates to students being expected to "participate as an effective team member by demonstrating

cooperation and responsibility" would result in group thinking and taking away from a student's individualism and unique talents.

Agency Response. No changes to the proposed section are recommended. The statement is written in terms defining the expectation for the student as an individual.

Subchapter H. Textiles and Apparel, High School.

§122.72. Apparel (One-Half Credit).

Issue: Clarity of language.

Comment. The Vocational Home Economics Teachers Association of Texas requested that language in §122.72(c)(6)(D) be amended to read "apply basic apparel production skills if training for a career in the apparel industry." The new language will increase clarity of wording.

Agency Response. The agency agrees with this comment and has amended the section.

Subchapter I. Environmental Design, High School.

§122.83. Interior Design (One-Half Credit).

Comment. The Vocational Home Economics Teachers Association of Texas requested that language in §122.83(c)(4)(D) be amended to read "propose strategies for controlling costs, allocating resources, and budgeting for acquisition of products to enhance interior environments." The new language would increase clarity since the current wording does not specify what is being allocated.

Agency Response. The agency agrees with this comment and has amended the section.

§122.84. Housing, Furnishings, and Equipment Production, Management, and Services (Two to Three Credits).

Comment. The Vocational Home Economics Teachers Association of Texas requested that language in §122.84(d)(4)(A) be amended to read "describe furniture and equipment used in residential and nonresidential applications." The new language would increase clarity of student expectation.

Agency Response. The agency agrees with this comment and has amended the language.

General Comments.

Issue: Appropriateness of content.

Comment. The Vocational Home Economics Teachers Association of Texas stated their support for how the sections reflect new developments and knowledge within the discipline, changes in societal and demographic patterns, technological applications and implications, and changes in the knowledge and skills necessary for effectiveness in adult roles and home economics careers.

Comment. An individual stated that the content for Home Economics Education as adopted in these sections provides comprehensive, balanced, and substantive guidelines for use by local school officials, teachers, and parents as they determine the scope of local home economics course offerings.

Comment. An individual commented that home economics courses are not the place for teaching interpersonal skills and

should focus on teaching physical skills as they relate to running a household.

Comment. An individual commented that education programs preparing students for future careers need to reinforce the fact that integrity, honesty, responsibility, respect, ethics, and positive attitudes as promoted by parents will be expectations in the workforce.

Agency Response. After receiving multiple comments on this issue, no redirection of focus for Home Economics Education is recommended. As part of the enrichment curriculum, content adopted for Home Economics Education will serve only as guidelines for local district use.

Issue: Numbering system for knowledge and skill statements within the courses.

Comment. The Vocational Home Economics Teachers Association of Texas commented that the use of headings within the courses is helpful in showing how the content is organized. However, the knowledge and skill statements should be numbered consecutively from beginning to the end of each course rather than creating separate sections for each heading.

Agency Response. The TEA agrees with this comment and amended the sections to make them consistent with TEKS in other content areas.

Issue: Skills and competencies associated with SCANS.

Comment. An individual commented that competencies identified by the SCANS are stated throughout the TEKS for Home Economics, including references to self-esteem, team members, negotiation, teamwork, interpersonal skills, and decision-making. This is evidence of how the TEKS and School-to-Work are entwined, and student attainment would be difficult to measure.

Agency Response. No changes to the proposed sections are recommended. The Home Economics TEKS do not contain specific references to SCANS, although they do contain skills and competencies that are among those recommended by the commission. The courses prepare students for roles in which these skills will be necessary. Some skills and competencies identified by the SCANS commission are an essential part of an effective curriculum.

Comment. An individual commented that young men and women should have the opportunity to learn the critical individual, family, and career competencies contained in these sections. The primary cause of employee, managerial, and executive failure in the work place is generally not a lack of academic competence, desire, or effort, but the inability to communicate and relate effectively with other human beings. Issue: focus on careers.

Comment. An individual commented that terminology referring to careers, jobs, employer, industry, etc. are repeated throughout the document. The individual stated that the TEKS is merely the educational arm to implement the School-to-Work plan.

Comment. An individual commented that throughout the document is the recurrent theme to pursue careers, enhance careers, career preparation, and performance standards that meet industry standards.

Agency Response. No changes to the proposed sections are recommended. In light of the purpose of the sections being adopted, it is necessary to refer to the terms specified. Use of the terminology is unrelated to the School-to-Work plan.

Issue: Substance versus performance.

Comment. An individual commented that when one reads between the lines, there is no substance to the TEKS, and instead performance-based curriculum. When it comes to real life, students need to be taught factual content rather than core competencies.

Agency Response. No changes to the proposed sections are recommended. The student expectations in these sections require demonstration of both the understanding of the factual content of the discipline and the ability to utilize that knowledge in concrete applications.

Issue: Use of vague terminology.

Comment. A school district commented that terminology such as "knowing how to learn" and "self esteem" is vague and can be widely interpreted.

Agency Response. The phrase "knowing how to learn" is not used in the sections being adopted. In the context of use in the sections being adopted, the term "self esteem" is clear in meaning.

Issue: Appropriateness of verbs for directing instruction and assessment of student performance.

Comment. An individual commented that the use of verbs such as "discuss," "examine," "explain," and "analyze" does not address what the student is expected to learn. The individual questioned how would a teacher grade student performance of a knowledge and skill statement using the verb "predict".

Agency Response. No changes to the proposed sections are recommended. When viewed in context, the verbs are a part of knowledge and skill statements that define content to be taught and would be measurable.

Subchapter A. Home Economics Foundations, Middle School

19 TAC §122.1, §122.2

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§122.1. Implementation of Texas Essential Knowledge and Skills for Home Economics Education, Home Economics Foundations, Middle School.

The provisions of this subchapter shall supersede §75.50(a) of this title (relating to Life Management Skills) beginning September 1, 1998.

§122.2. Skills for Living.

(a) General requirements. This comprehensive course is recommended for students in Grades 7-8.

(b) Introduction. Home economics education provides individuals and families with essential knowledge and skills for managing the challenges of living and working in a diverse, global society.

Individuals utilize these skills to enhance career and personal effectiveness, promote family strength and well-being, and pursue career options.

(c) Knowledge and skills.

(1) Family relationships and personal development. The student explains how family relationships affect personal development. The student is expected to:

(A) explain the role of the family in meeting needs of family members;

(B) describe rights, responsibilities, and expectations of family members;

(C) propose strategies for promoting satisfying relationships with siblings;

(D) explain how positive family relationships contribute to personal effectiveness in other settings; and

(E) explain the interdependence of family members across the life span.

(2) Family relationships and personal development. The student relates personal development to choices in life. The student is expected to:

(A) identify factors influencing personal development;

(B) propose ways to promote positive self-image;

(C) relate personality traits to positive interpersonal relationships;

(D) determine personal strengths and abilities as they relate to choices in life; and

(E) demonstrate practices of effective leaders and team members.

(3) Family relationships and personal development. The student implements strategies that promote positive parent-child relationships across the life span. The student is expected to:

(A) describe the responsibilities of parenting;

(B) summarize the impact of parenthood on individuals and families;

(C) explain factors influencing parent-child relationships;

(D) identify changes in the parent-child relationship at different stages in the family life cycle;

(E) describe the effects of societal and cultural patterns on parenting roles; and

(F) analyze concepts and skills related to parent-child relationships across the life span.

(4) Family relationships and personal development. The student demonstrates behaviors that contribute to satisfying interpersonal relationships. The student is expected to:

(A) describe strategies that promote satisfying relationships among friends;

(B) determine personal characteristics that promote positive peer relationships;

(C) explain how diversity impacts interpersonal relationships; and

(D) propose effective responses to inappropriate behavior in interpersonal relationships.

(5) Family relationships and personal development. The student applies principles of effective communication. The student is expected to:

(A) describe characteristics of effective communication;

(B) demonstrate techniques for resolving conflicts, including assertiveness techniques and refusal skills;

(C) explain how cultural background influences patterns of communication; and

(D) practice communication skills appropriate for various relationships and occasions.

(6) Family relationships and personal development. The student describes child care practices that promote development. The student is expected to:

(A) summarize developmental principles, factors, and appropriate activities influencing the growth and development of children;

(B) simulate emergency situations requiring first aid;

(C) identify safety practices that are important when caring for children;

(D) apply appropriate child care practices to babysitting and caregiving;

(E) discuss causes, prevention, and treatment of child abuse and neglect; and

(F) identify resources available for the protection of children.

(7) Personal management. The student analyzes the relationship between decision making and acceptance of responsibility. The student is expected to:

(A) implement the decision-making process;

(B) describe the role of acceptance of responsibility in making decisions;

(C) summarize the effects of personal priorities and other influences on decisions; and

(D) predict personal, family, and societal implications of various decisions.

(8) Personal management. The student utilizes effective consumer practices promoting money management and goal setting. The student is expected to:

(A) describe practices that facilitate goal setting;

(B) identify resources involved in decision making;

(C) explain the importance of planning in the achievement of short-term and long-term goals;

(D) utilize the decision-making process and goal setting to guide spending; and

(E) apply consumer practices facilitating the best use of available funds.

(9) Personal management. The student describes management practices facilitating individuals assuming multiple roles. The student is expected to:

(A) describe multiple roles of teens and their family members in society; and

(B) describe management skills needed to effectively manage multiple roles.

(10) Personal management. The student exhibits good nutrition and health practices that promote personal well-being and achievement across the life span. The student is expected to:

(A) identify practices that promote physical and mental health;

(B) explain dietary needs of individuals across the life span;

(C) describe eating disorders, their causes, and prevention;

(D) apply principles of good nutrition;

(E) identify sources of stress, including peer pressure;

(F) propose strategies and available resources for stress management; and

(G) relate the role of proper nutrition to well-being and achievement.

(11) Personal management. The student practices principles of good grooming and positive personal habits. The student is expected to:

(A) practice good grooming habits;

(B) summarize principles of clothing selection to meet needs and wants;

(C) demonstrate clothing-care procedures;

(D) determine consumer practices for effective management of the clothing budget; and

(E) analyze the role of grooming and apparel practices in personal effectiveness.

(12) Planning for the future. The student describes occupational opportunities in home economics and other career concentrations. The student is expected to:

(A) identify a variety of career options, including full-time homemaker;

(B) determine skills and educational requirements for identified careers;

(C) compare personal strengths, abilities, and goals to occupational requirements;

(D) explain how technology impacts family life and careers; and

(E) relate demands and rewards of identified careers to personal and family life.

(13) Planning for the future. The student evaluates personal goals in relation to planning for the future. The student is expected to:

(A) explain the impact of short-term and long-term goals in planning for the future;

(B) apply effective verbal, nonverbal, written, and electronic communication skills;

(C) apply effective study skills that promote academic achievement;

(D) identify resources that assist in educational planning;

(E) analyze the impact of career goals on personal behavior and educational decisions; and

(F) summarize the relationship between goal achievement, decision making, planning, and management.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Subchapter B. Home Economics Foundations, High School

19 TAC §§122.11-122.14

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§122.11. Implementation of Texas Essential Knowledge and Skills for Home Economics Education, Home Economics Foundations, High School.

The provisions of Chapter 122, Subchapters B-K, shall supersede §75.83 of this title (relating to Vocational Home Economics) beginning September 1, 1998.

§122.12. Personal and Family Development (One Credit).

(a) General requirements. This comprehensive laboratory course is recommended for students in Grades 9-12. Each student is expected to complete a supervised career-connections experience each semester.

(b) Introduction. Home economics education provides individuals and families with essential knowledge and skills for managing the challenges of living and working in a diverse, global society. Individuals utilize these skills to enhance career and personal effectiveness, promote family strength and well-being, and pursue career options.

(c) Knowledge and skills.

(1) Personal development. The student demonstrates personal behavior reflecting sound decision making and responsibility. The student is expected to:

(A) compare characteristics of chronological, physical, emotional, social, and intellectual maturity;

(B) explain how personal priorities affect the choice of friends, activities, interests, and behaviors;

(C) practice social skills relevant to positive interactions with others in various situations;

(D) analyze the role of self-esteem in responsible behavior;

(E) explain how personal decisions and behavior are influenced by family, cultural, technological, societal, demographic, and economic considerations; and

(F) predict the implications of personal behavior and decisions on peers, families, society, and future generations.

(2) Personal development. The student applies principles for developing positive relationships. The student is expected to:

(A) describe qualities necessary to support strong relationships;

(B) analyze roles of communication in developing positive relationships;

(C) practice methods of conflict resolution and negotiation in peer relationships;

(D) determine how healthy relationships assist in preparation for adulthood;

(E) point out the effects of cultural patterns on relationships;

(F) explain how friends influence behavior; and

(G) develop strategies for managing peer pressure.

(3) Family studies. The student describes the basic structures of the family unit throughout the life cycle. The student is expected to:

(A) explain how family structure changes throughout the life cycle;

(B) explain how cultural diversity affects family structures in society; and

(C) interpret the effects of changing demographics on family structure.

(4) Family studies. The student analyzes family functions, roles, and responsibilities of family members. The student is expected to:

(A) identify basic functions of the family and its role in society;

(B) discuss societal, cultural, demographic, and economic factors affecting the responsibilities of family members;

(C) evaluate methods to promote the health and safety of individuals and family members;

(D) analyze the multiple roles and responsibilities assumed by individuals within the family;

(E) assess the impact of technology on roles and responsibilities of family members; and

(F) identify management practices facilitating individuals assuming multiple family, community, and wage-earner roles.

(5) Family studies. The student determines factors that strengthen the family and create a sense of wellness. The student is expected to:

(A) describe factors that contribute to strong family units;

(B) analyze the impact of violence on families;

(C) identify causes and effects of family stress and techniques for management and prevention;

(D) practice methods of conflict resolution and negotiation in family relationships; and

(E) identify resources to aid in strengthening the family unit.

(6) Family studies. The student determines career options in the area of family services. The student is expected to:

(A) identify employment and entrepreneurial opportunities and preparation requirements in the area of family services; and

(B) describe rewards, demands, and future trends in careers related to family services.

(7) Child development. The student evaluates the responsibilities of parents and other caregivers in meeting the developmental needs of children. The student is expected to:

(A) identify the basic needs of children;

(B) describe patterns of intellectual, physical, social, and emotional development in children;

(C) identify resources for promoting the development of children, including those with special needs;

(D) analyze responsibilities of caregivers for promoting the development of children;

(E) determine the relationship of society and culture on meeting developmental needs of children; and

(F) demonstrate caregiver behaviors and strategies promoting the healthy intellectual, physical, social, and emotional development of children.

(8) Child development. The student analyzes various methods of guidance for children. The student is expected to:

(A) evaluate developmentally appropriate guidance techniques for children; and

(B) discuss causes, prevention, and treatment of child abuse.

(9) Child development. The student analyzes the responsibilities of parents and other caregivers for maintaining the health and safety of children. The student is expected to:

(A) explain the responsibilities of caregivers for maintaining the safety of children;

(B) analyze the caregiver's role in meeting the nutritional requirements of children; and

(C) outline practices that promote the health and wellness of children.

(10) Child development. The student determines career options related to child development and early childhood education. The student is expected to:

(A) identify employment and entrepreneurial opportunities and preparation requirements in the areas of child development and early childhood education; and

(B) describe rewards, demands, and future trends in child development careers.

(11) Apparel. The student analyzes consumer decision-making practices in individual and family apparel choices. The student is expected to:

(A) describe factors influencing apparel selection;

(B) determine consumer practices facilitating effective management of the apparel budget;

(C) describe clothing selection practices that accommodate personal needs, including age, lifestyle, special needs, and career;

(D) point out technological advancements affecting apparel decisions; and

(E) determine the relationship of apparel decisions to peer influence, self-esteem, and personal effectiveness.

(12) Apparel. The student practices clothing-care procedures. The student is expected to:

(A) interpret information on clothing-care labels;

(B) perform laundry procedures in accordance with clothing-care label information;

(C) describe practices for packing and storing apparel;

(D) utilize care labels and consumer skills as a basis for effectively securing appropriate clothing-care services;

(E) predict the impact of clothing-care requirements on overall wardrobe costs; and

(F) identify environmental issues related to clothing care and management.

(13) Apparel. The student utilizes principles of quality clothing construction in meeting clothing needs. The student is expected to:

(A) demonstrate safety practices when using and caring for tools and equipment;

(B) utilize principles of quality clothing construction in clothing selection, maintenance, repair, and alteration; and

(C) demonstrate planning, organizing, managing, and sequencing skills when illustrating simple clothing repair and alteration techniques.

(14) Apparel. The student determines career opportunities in the apparel industry. The student is expected to:

(A) identify employment and entrepreneurial opportunities and preparation requirements in apparel careers; and

(B) describe rewards, demands, and future trends in apparel careers.

(15) Nutrition and food. The student analyzes basic nutrition needs and results of dietary practices. The student is expected to:

(A) list classifications, sources, and functions of nutrients;

(B) compare personal diets to various guidelines;

(C) explain the effects of the life cycle, illness, and disease on individual dietary needs;

(D) analyze the problems and characteristics associated with eating disorders;

(E) discuss the effects of dietary practices on wellness and achievement;

(F) apply nutrition principles related to individual and family health decisions;

(G) determine cultural, economic, and societal influences on dietary practices and contemporary meal management; and

(H) analyze nutrition information on food labels.

(16) Nutrition and food. The student demonstrates table service and proper etiquette. The student is expected to:

(A) arrange table settings for a variety of occasions;

(B) demonstrate table manners and etiquette appropriate for a variety of occasions;

(C) explain the role of family mealtime in promoting family strength and the welfare of family members; and

(D) predict the influence of etiquette in the development of self-esteem and employability skills.

(17) Nutrition and food. The student demonstrates basic meal management techniques. The student is expected to:

(A) identify the impact of technology on meal management;

(B) demonstrate basic principles of sanitation and safety relating to meal management;

(C) apply management techniques when planning and preparing simple meals and recipes;

(D) analyze cost effective meal management practices;

(E) describe types and safe use of equipment, tools, and utensils; and

(F) demonstrate basic food preparation techniques to achieve quality standards and preserve nutritive value.

(18) Nutrition and food. The student determines career options related to nutrition, food science, and wellness. The student is expected to:

(A) identify employment and entrepreneurial opportunities and preparation requirements in the area of nutrition, food science, and wellness; and

(B) describe rewards, demands, and future trends in careers related to nutrition, food science, and wellness.

(19) Consumer and resource management. The student applies the decision-making process. The student is expected to:

(A) explain the decision-making process;

(B) identify the role of responsibility in the decision-making process; and

(C) practice decision making consistent with personal considerations, such as needs, wants, goals, priorities, and resources.

(20) Consumer and resource management. The student demonstrates effective management practices. The student is expected to:

(A) explain principles of time, energy, financial, and task management;

(B) apply effective management practices in scheduling personal activities; and

(C) describe the correlation between effective personal management practices and quality of family life.

(21) Consumer and resource management. The student determines types of resources and considerations for responsible use. The student is expected to:

(A) summarize types of resources;

(B) identify sources of income;

(C) evaluate responsibility in managing personal and family resources;

(D) apply the decision-making process in planning the allocations and use of finances;

(E) determine cultural, economic, societal, and environmental influences on consumer decision making;

(F) analyze consumer-buying techniques that promote effective utilization of resources;

(G) point out the impact of technology on consumer-buying practices and options; and

(H) identify consumer rights and responsibilities.

(22) Consumer and resource management. The student explains how consumer economics and resource management skills impact career options. The student is expected to:

(A) identify employment and entrepreneurial opportunities and preparation requirements in the areas of consumer and resource management;

(B) describe rewards, demands, and future trends in consumer economics and resource management careers; and

(C) determine the significance of consumer economics and resource management skills in all careers.

(23) Housing. The student analyzes human and environmental influences on family housing needs across the life span. The student is expected to:

(A) identify housing priorities and needs;

(B) describe environmental and technological influences on housing decisions; and

(C) analyze housing considerations related to meeting family housing needs and promoting family strength.

(24) Housing. The student determines types and costs of housing. The student is expected to:

(A) identify types of single and multifamily housing;

(B) describe advantages and disadvantages of various housing types;

(C) determine methods of controlling housing costs; and

(D) discuss cultural, demographic, societal, and economic factors and their effect on housing trends.

(25) Housing. The student follows guidelines for the selection, use, maintenance, and care of home furnishings and equipment. The student is expected to:

(A) identify aesthetic and functional considerations guiding home furnishings selection and use;

(B) determine methods of controlling home furnishings and equipment costs;

(C) describe safe use and care of home furnishings and major household equipment;

(D) demonstrate home maintenance and sanitation procedures; and

(E) determine home safety hazards and methods to correct them.

(26) Housing. The student determines career opportunities related to the housing industry. The student is expected to:

(A) identify employment and entrepreneurial opportunities and preparation requirements in housing; and

(B) describe rewards, demands, and future trends in housing careers.

(27) Career preparation. The student exhibits qualities of effective leaders and team members. The student is expected to:

(A) evaluate leadership characteristics;

(B) practice leadership skills;

(C) describe qualities of effective team members;

(D) describe the relationship of leadership and teamwork skills to preparation for employment and adult roles; and

(E) determine techniques effective leaders and team members use to promote an appreciation and understanding of cultural diversity.

(28) Career preparation. The student completes a supervised career-connections experience applying knowledge and skills

developed in the study of personal and family development. The student is expected to:

(A) determine home and business applications of knowledge and skills developed in the study of personal and family development; and

(B) utilize a career-connections experience to demonstrate occupational applications of competencies developed in the study of personal and family development.

§122.13. Career Studies (One-Half to One Credit).

(a) General requirements. This comprehensive course is recommended for students in Grades 10-12.

(b) Introduction. Home economics education provides individuals and families with essential knowledge and skills for managing the challenges of living and working in a diverse, global society. Individuals utilize these skills to enhance career and personal effectiveness, promote family strength and well-being, and pursue career options.

(c) Knowledge and skills.

(1) Career preparation. The student analyzes factors influencing career choices. The student is expected to:

(A) evaluate interests, abilities, and personal priorities related to employment;

(B) explain the decision-making process associated with career selection;

(C) determine preparation requirements for various levels of employment;

(D) identify economic indicators that affect career selection;

(E) determine the impact of societal patterns and changing demographics on career choices;

(F) determine the impact of technology on career options and choices;

(G) identify entrepreneurial opportunities within the home economics/family and consumer sciences profession;

(H) describe ways personal health affects career choices;

(I) examine how family structures and cultural patterns affect career choices;

(J) analyze the relationship of career choice, retirement plans, and family life-cycle stage; and

(K) determine the social, psychological, and financial implications of employment.

(2) Career preparation. The student demonstrates employability skills that lead to career success. The student is expected to:

(A) demonstrate effective methods to secure, maintain, and terminate employment;

(B) demonstrate effective verbal, nonverbal, written, and electronic communication skills;

(C) discuss how community service and work experiences contribute to employability;

(D) practice positive interpersonal skills including conflict resolution, negotiation, teamwork, and leadership;

(E) demonstrate productive work habits and attitudes;

(F) explain how competence in using resources, information, technology, and systems affects employability; and

(G) describe practices that facilitate management of multiple family, community, and wage-earner roles.

(3) Career preparation. The student completes a supervised career-connections experience applying knowledge and skills developed in the study of career opportunities in the home economics/family and consumer sciences profession. The student is expected to:

(A) determine home and business applications of knowledge and skills developed in the study of career opportunities in the home economics/family and consumer sciences profession; and

(B) utilize a career-connections experience to demonstrate occupational applications of competencies developed in the study of career opportunities in the home economics/family and consumer sciences profession.

(4) Career opportunities. The student evaluates career opportunities in child development and early childhood education. The student is expected to:

(A) determine educational requirements and career opportunities related to child development and early childhood education careers in human services, science and technology, education and communication, business and marketing, and art;

(B) describe future trends in child development and early childhood education careers in human services, science and technology, education and communication, business and marketing, and art; and

(C) analyze components of all aspects of the industry in relation to career opportunities in child development and early childhood education.

(5) Career opportunities. The student evaluates career opportunities in family studies and human services. The student is expected to:

(A) determine educational requirements and career opportunities related to family studies and human services careers in human services, science and technology, education and communication, business and marketing, and art;

(B) describe future trends in family studies and human services careers in human services, science and technology, education and communication, business and marketing, and art; and

(C) analyze components of all aspects of the industry in relation to career opportunities in family studies and human services.

(6) Career opportunities. The student evaluates career opportunities in consumer and resource management. The student is expected to:

(A) determine educational requirements and career opportunities related to consumer and resource management careers in human services, science and technology, education and communication, business and marketing, and art;

(B) describe future trends in consumer and resource management careers in human services, science and technology, education and communication, business and marketing, and art; and

(C) analyze components of all aspects of the industry in relation to career opportunities in consumer and resource management.

(7) Career opportunities. The student evaluates career opportunities in the hospitality industry. The student is expected to:

(A) determine educational requirements and career opportunities related to hospitality careers in human services, science and technology, education and communication, business and marketing, and art;

(B) describe future trends in hospitality careers in human services, science and technology, education and communication, business and marketing, and art; and

(C) analyze components of all aspects of the industry in relation to career opportunities in the hospitality industry.

(8) Career opportunities. The student evaluates career opportunities in the textile and apparel industries. The student is expected to:

(A) determine educational requirements and career opportunities related to textile and apparel careers in human services, science and technology, education and communication, business and marketing, and art;

(B) describe future trends in textile and apparel careers in human services, science and technology, education and communication, business and marketing, and art; and

(C) analyze components of all aspects of the industry in relation to career opportunities in the textile and apparel industries.

(9) Career opportunities. The student evaluates career opportunities in nutrition and wellness/food science and technology. The student is expected to:

(A) determine educational requirements and career opportunities related to nutrition and wellness/food science and technology in human services, science and technology, education and communication, business and marketing, and art;

(B) describe future trends in nutrition and wellness/food science and technology in human services, science and technology, education and communication, business and marketing, and art; and

(C) analyze components of all aspects of the industry in relation to career opportunities in nutrition and wellness/food science and technology.

(10) Career opportunities. The student evaluates career opportunities in environmental design. The student is expected to:

(A) determine educational requirements and career opportunities related to environmental design careers in human services, science and technology, education and communication, business and marketing, and art;

(B) describe future trends in environmental design in human services, science and technology, education and communication, business and marketing, and art; and

(C) analyze components of all aspects of the industry in relation to career opportunities in environmental design.

(11) Career opportunities. The student evaluates education career opportunities within the home economics/family and consumer sciences profession. The student is expected to:

(A) determine preparation requirements and opportunities for education careers within the home economics/family and consumer sciences profession;

(B) describe future trends in education careers within the home economics/family and consumer sciences profession; and

(C) analyze components of all aspects of the industry in relation to education career opportunities within the home economics/family and consumer sciences profession.

§122.14. Family and Career Management (One-Half Credit).

(a) General requirements. This comprehensive course is recommended for students in Grades 11-12.

(b) Introduction. Home economics education provides individuals and families with essential knowledge and skills for managing the challenges of living and working in a diverse, global society. Individuals utilize these skills to enhance career and personal effectiveness, promote family strength and well-being, and pursue career options.

(c) Knowledge and skills.

(1) Preparation for family and career roles. The student determines transferable skills necessary to function effectively in family, community, and wage-earner roles. The student is expected to:

(A) determine personal and family management skills that transfer to the workplace and community;

(B) assess changes in the job market and the resulting impact on the family; and

(C) identify ways family members and family practices promote lifelong learning.

(2) Preparation for family and career roles. The student analyzes the impact of technology on the changing workforce and on the family. The student is expected to:

(A) describe technological skills required for the workplace;

(B) explain the impact of technology on the workforce and family; and

(C) describe the effect of technology on personal and family life management.

(3) Preparation for family and career roles. The student correlates personal and family strengths to employment opportunities. The student is expected to:

(A) assess personal interests, characteristics, skills, and their compatibility with varied career options;

(B) determine a variety of career options and preparation requirements; and

(C) describe the correlation between family support and job success.

(4) Preparation for family and career roles. The student completes a supervised career-connections experience applying knowledge and skills developed in the study of family and career management. The student is expected to:

(A) determine home and business applications of knowledge and skills developed in the study of family and career management; and

(B) utilize a career-connections experience to demonstrate occupational applications of competencies developed in the study of family and career management.

(5) Personal and career effectiveness. The student compares relationship skills to personal and career success. The student is expected to:

(A) identify methods for developing and maintaining successful professional relationships; and

(B) analyze the influence of positive interpersonal relationship skills on job success.

(6) Personal and career effectiveness. The student exhibits personal characteristics that lead to career and personal success. The student is expected to:

(A) relate positive attitude to job and family effectiveness;

(B) exhibit communication and interpersonal skills, including conflict resolution and negotiation, for developing personal and professional relationships;

(C) practice time and stress management techniques;

(D) demonstrate decision-making, goal-setting, and problem-solving skills;

(E) determine skills related to diversity that impact career and personal effectiveness;

(F) analyze appropriate dress and grooming for the workplace;

(G) demonstrate business and personal etiquette;

(H) demonstrate skills and characteristics of leaders and effective team members;

(I) explain how to work within organizational structures to meet employer goals;

(J) demonstrate effective techniques to secure, maintain, and terminate employment; and

(K) demonstrate verbal, nonverbal, written, and electronic communication skills.

(7) Personal and career effectiveness. The student describes ways businesses contribute to family strengths and parental effectiveness. The student is expected to:

(A) describe contributions of business to employees' balancing responsibilities of family, community, and wage-earner roles;

(B) identify workplace policies and practices supportive of families; and

(C) describe management practices facilitating individuals assuming multiple family, community, and wage-earner roles.

(8) Personal and career effectiveness. The student analyzes health-related issues affecting employees in the workplace. The student is expected to:

(A) determine occupational implications of substance abuse;

(B) summarize company policies regarding mandatory drug testing;

(C) summarize various employment policies regarding physical limitations and chronic health conditions;

(D) describe workplace programs that promote good nutrition and exercise; and

(E) identify environmental considerations and essential safety practices at work.

(9) Personal and career effectiveness. The student describes the impact of ethical and legal practices in the workplace. The student is expected to:

(A) summarize federal regulations governing employment practices;

(B) identify forms of ethical and legal violations in the workplace;

(C) identify strategies to address ethical and legal violations; and

(D) discuss abuse of privileges, conflict of interest, and preferential treatment.

(10) Effective management. The student exhibits resource management techniques. The student is expected to:

(A) identify personal resources;

(B) develop time management strategies;

(C) explain the effect of priorities on personal and family management decisions; and

(D) analyze components of effective financial management.

(11) Effective management. The student practices effective decision making in meeting personal and family clothing needs. The student is expected to:

(A) identify factors affecting personal and family clothing selection;

(B) practice clothing care and maintenance;

(C) analyze factors affecting the management of the personal and family clothing budget; and

(D) demonstrate personal and business wardrobe planning skills.

(12) Effective management. The student practices effective decision making in meeting personal and family housing needs. The student is expected to:

(A) summarize housing options and considerations for selection;

(B) estimate the expense of obtaining furnishings and maintaining living space;

(C) determine skills necessary for managing and maintaining a home; and

(D) summarize laws and regulations affecting housing.

(13) Effective management. The student determines food choices that promote good health. The student is expected to:

(A) determine considerations in planning nutritionally adequate meals for individuals and families;

(B) determine food budget considerations;

(C) compare the cost of foods from different sources; and

(D) plan menus considering skills, time limitations, and nutritional needs.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning And Research

Texas Education Agency

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For further information, please call: (512) 463-9701



Subchapter C. Family Studies and Human Services, High School

19 TAC §§122.21-122.24

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§122.21. Implementation of Texas Essential Knowledge and Skills for Home Economics Education, Family Studies and Human Services, High School.

The provisions of Chapter 122, Subchapters B-K, shall supersede §75.83 of this title (relating to Vocational Home Economics) beginning September 1, 1998.

§122.22. Individual and Family Life (One-Half Credit).

(a) General requirements. This technical course is recommended for students in Grades 10-12.

(b) Introduction. The relationships between individuals and among family members significantly affect the quality of life. Individuals use knowledge and skills in family studies and human services to enhance personal development, foster quality relationships, promote wellness of family members, manage multiple adult roles, and pursue careers related to these fields of study.

(c) Knowledge and skills.

(1) Personal development. The student evaluates factors related to personal development. The student is expected to:

(A) describe factors that affect personal identity, personality, and self-esteem;

(B) analyze how the family influences the development of personal identity and self-esteem of all family members, including those with special needs; and

(C) propose strategies that promote physical, emotional, intellectual, and social development.

(2) Personal development. The student determines short-term and long-term implications of personal decisions. The student is expected to:

(A) summarize the decision-making process;

(B) discuss consequences and responsibilities of decisions; and

(C) evaluate the effect of decisions on health, well-being, family, interpersonal relationships, employment, and society as a whole.

(3) Personal development. The student analyzes considerations related to the transition to independent adulthood. The student is expected to:

(A) describe adjustments related to achieving independence; and

(B) determine responsibilities of living as an independent adult.

(4) Interpersonal relationships. The student analyzes the family's role in relationship development. The student is expected to:

(A) describe the development of relationships;

(B) explain the family's role in fostering the abilities of its members to develop healthy relationships; and

(C) analyze effects of cultural patterns on family relationships.

(5) Interpersonal relationships. The student analyzes relationship development outside the family. The student is expected to:

(A) describe ways to promote friendship;

(B) describe the influence of peers on the individual;

(C) determine appropriate responses to authority figures;

(D) propose ways to promote an appreciation of diversity;

(E) assess the importance of attitude in relationships; and

(F) discuss functions and roles of dating.

(6) Interpersonal relationships. The student determines factors related to marital success. The student is expected to:

(A) analyze components of a successful marriage; and

(B) determine communication skills and practices that strengthen marriage.

(7) Effective individual and family functioning. The student determines methods that promote an effective family unit. The student is expected to:

- (A) describe family structures;
- (B) explain the role of the individual within the family;
- (C) compare functions of families in various cultures;
- (D) predict the effects of societal, demographic, and economic trends on individuals and the family;
- (E) appraise ways to strengthen functions in varied family structures;
- (F) determine procedures for meeting individual and family needs through resource management;
- (G) explain how technology influences family functions and relationships; and
- (H) determine the impact of effective family functioning on community and society.

(8) Effective individual and family functioning. The student determines how changes occurring throughout the family life cycle impact individuals and families. The student is expected to:

- (A) describe the stages of the family life cycle;
- (B) describe roles and responsibilities of individuals and family members throughout the family life cycle;
- (C) analyze financial considerations related to the family life cycle; and
- (D) predict the benefits of technological advances on families throughout the family life cycle.

(9) Effective individual and family functioning. The student analyzes types of needs and crises experienced by individuals and families. The student is expected to:

- (A) categorize types of crises and their effect on individuals and families;
- (B) determine strategies for prevention and management of individual and family problems and crises;
- (C) identify resources and support systems that provide assistance to families in crisis;
- (D) determine management strategies and technology available to meet special needs of family members; and
- (E) summarize laws and public policies related to the family.

(10) Effective individual and family functioning. The student determines stress management effective for individuals and families. The student is expected to:

- (A) describe the impact of stress on individuals and relationships;
- (B) identify factors contributing to stress; and
- (C) practice techniques for managing stress.

(11) Career preparation. The student determines opportunities and preparation requirements for careers in the field of family studies and human services. The student is expected to:

- (A) determine employment and entrepreneurial opportunities and preparation requirements for careers in the field of family studies and human services;
- (B) determine how interests, abilities, and personal priorities affect career choice; and
- (C) propose short-term and long-term career goals.

(12) Career preparation. The student exhibits employability skills. The student is expected to:

- (A) practice effective verbal, nonverbal, written, and electronic communication skills;
- (B) analyze the influence of cultural background on patterns of communication;
- (C) practice positive interpersonal skills including conflict resolution, negotiation, teamwork, and leadership;
- (D) demonstrate effective techniques to secure, maintain, and terminate employment;
- (E) determine ethical practices in the workplace; and
- (F) utilize leadership and team member skills in problem-solving situations.

(13) Career preparation. The student analyzes management practices facilitating individuals assuming multiple family, community, and wage-earner roles. The student is expected to:

- (A) determine the impact of career choice on family life;
- (B) describe the effect of family life on workplace productivity;
- (C) determine employment practices and trends that support families; and
- (D) explain how technology impacts career options and family roles.

(14) Career preparation. The student completes a supervised career-connections experience applying knowledge and skills developed in the study of individual and family life. The student is expected to:

- (A) determine home and business applications of knowledge and skills developed in the study of individual and family life; and
- (B) utilize a career-connections experience to demonstrate occupational applications of competencies developed in the study of individual and family life.

§122.23. Family Health Needs (One-Half Credit).

(a) General requirements. This technical course is recommended for students in Grades 10-12.

(b) Introduction. The relationships between individuals and among family members significantly affect the quality of life. Individuals use knowledge and skills in family studies and human services to enhance personal development, foster quality

relationships, promote wellness of family members, manage multiple adult roles, and pursue careers related to these fields of study.

(c) Knowledge and skills.

(1) Health and wellness of family members. The student promotes principles of good health and wellness for family members across the life span. The student is expected to:

(A) identify principles and implications of good personal health for family members; and

(B) evaluate the role of personal management in maintaining good health and wellness.

(2) Health and wellness of family members. The student evaluates the effect of nutrition in maintaining health and wellness of family members. The student is expected to:

(A) determine dietary practices that meet the nutritional needs of individuals and family members throughout the life span; and

(B) explain the role of nutrition in managing special health needs of family members.

(3) Health and wellness of family members. The student explains how stress management promotes physical and mental health of family members. The student is expected to:

(A) identify causes of stress and its impact on individuals and families;

(B) determine stress management techniques and available resources; and

(C) determine how healthy individual and family lifestyles contribute to stress management.

(4) Management of health needs. The student determines practices that promote health and safety of family members, including those with special needs. The student is expected to:

(A) discuss common family health problems, causes, prevention, and appropriate sources of treatment;

(B) describe personal hygiene and home sanitation procedures that contribute to disease prevention;

(C) determine typical causes of home health emergencies;

(D) outline appropriate actions of various family members in response to home emergencies; and

(E) describe ways to prevent environmental and safety hazards in the home.

(5) Management of health needs. The student analyzes family health-care options. The student is expected to:

(A) identify available family health-care resources;

(B) explain how technology impacts health-care services;

(C) describe the health-care system and structures for the delivery of medical services; and

(D) determine criteria for selecting professional medical services for family members.

(6) Management of health needs. The student analyzes the impact of illness, accidents, and special health needs on the family. The student is expected to:

(A) determine the health-care costs of common accidents and diseases;

(B) identify resources and methods for managing the health-care costs of family members;

(C) compare characteristics and benefits of different approaches to providing for the health-care needs of family members; and

(D) describe the physical, emotional, and social impact of illness, accidents, and special health needs on the family.

(7) Special family health needs and issues. The student analyzes skills and strategies needed to meet special health needs. The student is expected to:

(A) identify special health needs of individuals;

(B) determine management strategies for meeting special health needs within the family;

(C) identify skills needed by caregivers of family members with special health needs;

(D) identify modification requirements in diet, clothing, and environment needed by family members with special health needs; and

(E) identify resources and technological advances that can be utilized in meeting the special needs of family members.

(8) Special family health needs and issues. The student determines management options for meeting special health needs of older family members. The student is expected to:

(A) describe the psychological, physical, social, and economic changes that occur during later adulthood;

(B) assess services available through home health care, support groups, and elder care options;

(C) explain the importance of proper diet and exercise to the health and well-being of older adults;

(D) determine implications for family members living in multigenerational households; and

(E) describe technological advances that expand elder care options.

(9) Special family health needs and issues. The student analyzes family health issues. The student is expected to:

(A) explain the family's role in the prevention of eating disorders;

(B) assess the impact of substance abuse on the individual and family; and

(C) describe methods for prevention of various forms of abuse and neglect of family members.

(10) Special family health needs and issues. The student analyzes the effect of public policy on the individual and family health-care field. The student is expected to:

(A) identify laws, policies, trends, and issues affecting family health and the cost of care;

(B) summarize laws and public policies that impact individuals with special health needs and their families;

(C) describe the interrelationship of the health-care field and the U.S. economy; and

(D) research the impact of changing demographics on public policy.

(11) Career preparation. The student makes informed career decisions that reflect personal, family, and career goals. The student is expected to:

(A) determine personal characteristics appropriate for individual and family health-care careers;

(B) propose short-term and long-term career goals;

(C) evaluate employment and entrepreneurial opportunities and preparation requirements for careers related to individual and family health;

(D) predict emerging careers related to the increasing older adult population and to technological advances in family health care; and

(E) describe management practices facilitating individuals assuming multiple family, community, and wage-earner roles.

(12) Career preparation. The student exhibits employability skills. The student is expected to:

(A) determine effective methods to secure, maintain, and terminate employment;

(B) demonstrate effective verbal, nonverbal, written, and electronic communication skills;

(C) practice positive human-relations skills;

(D) demonstrate skills, characteristics, and responsibilities of leaders and effective team members; and

(E) determine ethical practices in careers related to individual and family health.

(13) Career preparation. The student completes a supervised career-connections experience applying knowledge and skills developed in the study of family health needs. The student is expected to:

(A) determine home and business applications of knowledge and skills developed in the study of family health needs; and

(B) utilize a career-connections experience to demonstrate occupational applications of competencies developed in the study of family health needs.

§122.24. Services for Older Adults (Two to Three Credits).

(a) General requirements. This course provides occupationally specific training and is recommended for students in Grades 11-12. Students may be awarded two to three credits per year for one to two years for the successful completion of this course. Instruction may be delivered through school-based pre-employment laboratory training or through work-based delivery arrangements such as cooperative education, preceptorships, mentoring, and job shadowing. The

two recommended prerequisites for this course are: Family Health Needs, Nutrition and Food Science.

(b) Introduction. The relationships between individuals and among family members significantly affect the quality of life. Individuals use knowledge and skills in family studies and human services to enhance personal development, foster quality relationships, promote wellness of family members, manage multiple adult roles, and pursue careers related to these fields of study.

(c) Knowledge and skills.

(1) Quality of life. The student analyzes factors affecting the older adult population. The student is expected to:

(A) describe the aging process;

(B) describe characteristics and care needs of older adults;

(C) identify laws, trends, and issues affecting older adults;

(D) analyze factors contributing to the growing older adult population;

(E) predict how changing demographics impact older adults and society as a whole;

(F) determine the role of older adults, their status, and contributions in various cultures;

(G) analyze the influences of technology on the health care and lifestyle of older adults; and

(H) identify resources for addressing the various needs of older adults.

(2) Quality of life. The student determines appropriate communication techniques for interacting with older adults. The student is expected to:

(A) describe communication and guidance techniques appropriate for older adults functioning at various levels;

(B) implement strategies that enhance cooperation and involvement between family members and older adults; and

(C) utilize appropriate applications of technology that enhance opportunities for older adults to maintain involvement, pursue lifelong learning, and continue making contributions to society.

(3) Quality of life. The student evaluates the nutritional requirements and needs of older adults. The student is expected to:

(A) identify the functions and sources of nutrients;

(B) apply principles of nutrition to meet the daily food requirements of older adults;

(C) identify common dietary deficiencies and disorders associated with older adults;

(D) determine available technology that aids in dietary modifications for older adults;

(E) analyze factors affecting diets and eating practices of older adults with special needs;

(F) summarize food preparation and service techniques that facilitate retention of nutrients;

(G) propose methods to enhance older adults' independence in meal preparation; and

(H) appraise food and nutrition resources.

(4) Quality of life. The student analyzes contributions of older adults to society. The student is expected to:

(A) determine contributions older adults make to society through personal achievement, family life, employment, and volunteerism; and

(B) predict ways an increasing older adult population can benefit society.

(5) Needs of older adults. The student implements appropriate practices for meeting the physical needs of older adults. The student is expected to:

(A) describe physical characteristics typical of the aging process;

(B) perform appropriate techniques for promoting independence among older adults with physical limitations;

(C) determine caregiver strategies appropriate to accommodate physical limitations of older adults;

(D) conduct physical activities appropriate for older adults; and

(E) identify considerations when selecting appropriate housing, furnishings, clothing, and transportation for older adults at various levels of functioning.

(6) Needs of older adults. The student implements appropriate practices for meeting the emotional needs of older adults. The student is expected to:

(A) identify special emotional needs of older adults;

(B) summarize ways to alleviate insecurities and loss of dignity experienced by some older adults;

(C) describe techniques that promote emotional adjustments to losses;

(D) describe crisis management techniques;

(E) determine the impact of family support on the emotional well-being of older relatives; and

(F) utilize caregiver techniques promoting positive emotional health of older adults.

(7) Needs of older adults. The student implements appropriate practices for meeting the intellectual needs of older adults. The student is expected to:

(A) differentiate between effects of aging and disease on mental abilities;

(B) describe mental disorders commonly associated with some older adults;

(C) analyze methods that caregivers can use to promote mental alertness;

(D) determine caregiver strategies appropriate to accommodate persons with mental limitations;

(E) determine techniques promoting independence among older adults with mental limitations; and

(F) conduct appropriate intellectually stimulating activities to meet varying needs of older adults.

(8) Needs of older adults. The student implements appropriate practices for meeting the social needs of older adults. The student is expected to:

(A) assess the impact of culture on the role of older adults;

(B) summarize theories associated with social changes of aging;

(C) identify ways to meet the social needs of older adults;

(D) point out factors influencing the social needs of older adults; and

(E) utilize planning and group leadership techniques to meet the recreational needs of older adults.

(9) Elder care. The student describes effective management practices related to care of older adults. The student is expected to:

(A) describe types and multiple responsibilities of caregivers;

(B) identify types of facilities and levels of care for older adults;

(C) demonstrate productive work habits and attitudes;

(D) exhibit communication skills needed in all levels of care;

(E) practice effective stress management strategies when providing services for older adults;

(F) determine resources for caregivers and older adults;

(G) describe management functions in facilities for older adults; and

(H) determine technological business applications used in management of elder care facilities.

(10) Elder care. The student determines procedures for promoting the health and wellness of older adults. The student is expected to:

(A) explain the causes and prevention of communicable diseases;

(B) identify community resources for assistance in emergencies;

(C) identify possible signs of illness in older adults;

(D) describe types of elder abuse, neglect, and prevention; and

(E) implement routine procedures that promote health and wellness of older adults.

(11) Elder care. The student analyzes the components of a safe, sanitary environment. The student is expected to:

(A) analyze the importance of a safe and sanitary environment;

(B) practice sanitation procedures;

(C) utilize personal sanitation measures to prevent the spread of infection and disease;

(D) point out hazardous elements in an older person's home or care facility; and

(E) propose housing adaptations for the special needs of older adults.

(12) Elder care. The student determines procedures used in personal care of older adults. The student is expected to:

(A) describe technological advances that facilitate care of older adults;

(B) promote self-reliance while assisting older adults with personal care and hygiene;

(C) practice special housekeeping and maintenance skills associated with older adults; and

(D) evaluate personal care procedures and schedules in an elder care facility.

(13) Career preparation. The student exhibits employability skills which lead to job success in services for older adults. The student is expected to:

(A) demonstrate effective verbal, nonverbal, written, and electronic communication skills;

(B) demonstrate effective methods to secure, maintain, and terminate employment;

(C) demonstrate positive interpersonal skills including conflict resolution, negotiation, teamwork, and leadership;

(D) evaluate the relationship of good physical and mental health to job success and achievement;

(E) demonstrate appropriate grooming and appearance for the workplace;

(F) demonstrate appropriate business and personal etiquette in the workplace;

(G) exhibit productive work habits and attitudes; and

(H) analyze opportunities in volunteer work with older adults.

(14) Career preparation. The student determines employment opportunities and preparation requirements in services for older adults. The student is expected to:

(A) determine preparation requirements for various levels of employment in a variety of careers that provide services to older adults;

(B) analyze the future employment outlook in services for older adults;

(C) describe entrepreneurial opportunities in services for older adults;

(D) determine how interests, abilities, personal priorities, and family responsibilities affect career choice;

(E) compare rewards and demands for various levels of employment in a variety of careers; and

(F) determine continuing education opportunities that enhance career advancement and promote lifelong learning.

(15) Career preparation. The student demonstrates ethical practices in providing services for older adults. The student is expected to:

(A) summarize the rights and responsibilities of employers and employees;

(B) describe the rights and responsibilities of older adults as clients;

(C) exhibit ethical practices in providing services for older adults;

(D) point out strategies for advocating for the rights of older adults; and

(E) analyze fraudulent and deceptive practices that victimize older adults.

(16) Career preparation. The student analyzes the management of multiple family, community, and wage-earner roles. The student is expected to:

(A) analyze challenges of managing multiple family, community, and wage-earner roles; and

(B) exhibit management practices facilitating individuals assuming multiple roles.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 15, 1997.

TRD-9706446

Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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For further information, please call: (512) 463-9701



Subchapter D. Child Development, Education, and Services; High School

19 TAC §§122.31-122.34

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§122.31. Implementation of Texas Essential Knowledge and Skills for Home Economics Education, Child Development, Education, and Services; High School.

The provisions of Chapter 122, Subchapters B-K, shall supersede §75.83 of this title (relating to Vocational Home Economics) beginning September 1, 1998.

§122.32. Preparation for Parenting (One-Half Credit).

(a) General requirements. This technical laboratory course is recommended for students in Grades 10-12.

(b) Introduction. Knowledge and skills related to child growth and development equip individuals to develop positive relationships with children and effective parenting and caregiver skills. Individuals use these skills to promote the well-being and healthy development of children, strengthen families in a culturally diverse society, and pursue careers related to the care and education of children.

(c) Knowledge and skills.

(1) Preparation for parenthood. The student analyzes factors affecting the decision to parent. The student is expected to:

(A) explain the role of personal goals and priorities in the decision to parent;

(B) describe personal health and genetic considerations that could impact the decision to parent;

(C) analyze the impact of the decision to parent on individuals and families;

(D) determine cultural and societal factors that influence the decision to parent; and

(E) determine the social, emotional, intellectual, physical, and financial readiness required for parenting.

(2) Preparation for parenthood. The student describes parenting in various family structures. The student is expected to:

(A) analyze the implications of various family structures on parenting practices and child care options; and

(B) determine the legal responsibilities involved in parenting.

(3) Preparation for parenthood. The student analyzes the impact on the family of physical and emotional changes that occur during pregnancy. The student is expected to:

(A) describe signs of pregnancy;

(9) Effective parenting. The student summarizes appropriate guidance techniques for children of various ages and developmental levels. The student is expected to:

- (A) identify the various types of guidance;
- (B) determine appropriate guidance techniques;
- (C) describe parenting styles and the effects on children;
- (D) explain behaviors that may lead to child abuse; and
- (E) identify strategies that deter abusive behavior.

(10) Effective parenting. The student evaluates how individual and family crises affect family relationships and parenting. The student is expected to:

- (A) identify family crises;
- (B) analyze how family crises affect family and parenting relationships;
- (C) determine strategies for preventing and coping with family crises;
- (D) summarize resources available to assist families; and
- (E) discuss society's role in the protection of individuals and families.

(11) Career preparation. The student makes informed career decisions that reflect personal, family, and career goals. The student is expected to:

- (A) analyze the impact of career decisions on parenting;
- (B) propose short-term and long-term career goals;
- (C) assess personal interests, aptitudes, and abilities needed in the family-services profession;
- (D) exhibit employability skills;
- (E) demonstrate effective verbal, nonverbal, written, and electronic communication skills;
- (F) demonstrate skills and characteristics of leaders and effective team members; and
- (G) evaluate employment and entrepreneurial opportunities and educational requirements in the family-services profession;

(12) Career preparation. The student completes a supervised career-connections experience applying knowledge and skills developed in the study of parenting. The student is expected to:

- (A) determine home and business applications of knowledge and skills developed in the study of parenting; and
- (B) utilize a career-connections experience to demonstrate occupational applications of competencies developed in the study of parenting.

§122.33. *Child Development (One-Half Credit).*

(a) General requirements. This technical laboratory course is recommended for students in Grades 10-12.

(b) Introduction. Knowledge and skills related to child growth and development equip individuals to develop positive relationships with children and effective parenting and caregiver skills. Individuals use these skills to promote the well-being and healthy development of children, strengthen families in a culturally diverse society, and pursue careers related to the care and education of children.

(c) Knowledge and skills.

(1) Prenatal care and development. The student explains components of prenatal care and development. The student is expected to:

- (A) describe nutritional needs prior to and during pregnancy;
- (B) analyze reasons for medical care and good health practices prior to and during pregnancy;
- (C) identify signs of pregnancy; and
- (D) outline stages of prenatal development.

(2) Prenatal care and development. The student determines hereditary and environmental factors affecting prenatal development. The student is expected to:

- (A) discuss the role of genetics in prenatal development;
- (B) determine environmental factors affecting development of the fetus; and
- (C) discuss the impact of technological advances on prenatal care and development.

(3) Prenatal care and development. The student explains the process of delivery. The student is expected to:

- (A) describe the stages of labor;
- (B) summarize methods of delivery; and
- (C) describe possible complications of delivery.

(4) Infancy. The student analyzes the growth, development, and care of the newborn. The student is expected to:

- (A) analyze the physical, emotional, social, and intellectual development of the newborn;
- (B) explain the relationship of nurturing to the growth and development of the newborn;
- (C) describe the influence of the family on the growth and development of the newborn;
- (D) summarize strategies for optimizing the development of newborns, including those with special needs; and
- (E) describe positive caregiving techniques.

(5) Infancy. The student analyzes the growth, development, and care of the infant. The student is expected to:

- (A) analyze the physical, emotional, social, and intellectual development of the infant;
- (B) analyze various theories of psychosocial and intellectual development;

(C) determine the influences of the family and society on the infant;

(D) summarize strategies for optimizing the development of infants, including those with special needs;

(E) determine techniques that promote the health and safety of an infant; and

(F) determine developmentally appropriate guidance techniques during the first year of life.

(6) **Infancy.** The student describes family adjustments occurring in response to the addition of a child to the family. The student is expected to:

(A) analyze emotional changes occurring after the addition of a child to the family;

(B) discuss shared parenting responsibilities;

(C) describe strategies for managing the multiple roles of family members;

(D) discuss considerations for parents in maintaining their relationship after the addition of children to the family; and

(E) describe family financial adjustments resulting from the addition of a child to the family.

(7) **Toddler, preschool, and school-age child.** The student analyzes the growth and development of the toddler. The student is expected to:

(A) analyze the physical, emotional, social, and intellectual development of the toddler;

(B) determine the role of play in a toddler's growth and development;

(C) summarize strategies for optimizing the development of toddlers, including those with special needs; and

(D) determine developmentally appropriate guidance techniques for use with toddlers.

(8) **Toddler, preschool, and school-age child.** The student analyzes the growth and development of the preschool child. The student is expected to:

(A) analyze the physical, emotional, social, and intellectual development of the preschool child;

(B) describe the role of play in a preschool child's growth and development;

(C) summarize strategies for optimizing the development of preschool children, including those with special needs; and

(D) determine developmentally appropriate guidance techniques for a preschool child.

(9) **Toddler, preschool, and school-age child.** The student analyzes the growth and development of the school-age child. The student is expected to:

(A) analyze the physical, emotional, social, and intellectual development of the school-age child;

(B) analyze the role of the school environment on the growth and development of the school-age child;

(C) summarize strategies for optimizing the growth and development of school-age children, including those with special needs; and

(D) determine developmentally appropriate guidance techniques for the school-age child.

(10) **Care and protection of children.** The student evaluates child care agencies and services available to families. The student is expected to:

(A) identify criteria for assessing the quality of child care;

(B) compare child care options;

(C) point out characteristics of quality child care that reflect the philosophy of the caregiver serving as teacher;

(D) determine the influences of child care on family economics;

(E) determine agencies and services that protect the rights of children;

(F) summarize various resources focusing on children;

(G) predict the impact of changing demographics and cultural diversity on the health and welfare of children; and

(H) discuss legislation and public policies affecting children.

(11) **Care and protection of children.** The student describes the impact of child abuse on children and families. The student is expected to:

(A) analyze forms, causes, and effects of child abuse;

(B) summarize prevention and treatment of child abuse; and

(C) discuss responsibilities of citizens to report child abuse.

(12) **Care and protection of children.** The student analyzes practices that promote the health and wellness of children. The student is expected to:

(A) describe factors essential to the health and safety of children;

(B) explain the impact of appropriate health care on the well-being of children;

(C) suggest techniques for promoting healthy dietary practices in children of various ages; and

(D) describe practices that promote the safety of children at various developmental levels.

(13) **Career preparation.** The student exhibits employability skills. The student is expected to:

(A) demonstrate skills, characteristics, and responsibilities of leaders and effective team members;

(B) demonstrate effective methods to secure, maintain, and terminate employment;

(C) practice human-relations skills;

(D) explain obligations of employees and employers in terminating employment; and

(E) demonstrate effective verbal, nonverbal, written, and electronic communication skills.

(14) Career preparation. The student makes informed career decisions that reflect personal, family, and career goals. The student is expected to:

(A) assess personal interests, aptitudes, and abilities;

(B) evaluate employment and entrepreneurial opportunities and education requirements in the field of child development and early childhood education;

(C) propose short-term and long-term career goals; and

(D) describe management practices facilitating individuals assuming multiple family, community, and wage-earner roles.

(15) Career preparation. The student completes a supervised career-connections experience applying knowledge and skills developed in the study of child development. The student is expected to:

(A) determine home and business applications of knowledge and skills developed in the study of child development; and

(B) utilize a career-connections experience to demonstrate occupational applications of competencies in the study of child development.

§122.34. *Child Care and Guidance, Management, and Services (Two to Three Credits).*

(a) General requirements. This course provides occupationally specific training and is recommended for students in Grades 11-12. Students may be awarded two to three credits per year for one to two years for the successful completion of this course. Instruction may be delivered through school-based pre-employment laboratory training or through work-based delivery arrangements such as cooperative education, preceptorships, mentoring, and job shadowing. The two recommended prerequisites for this course are: Child Development, Nutrition and Food Science.

(b) Introduction. Knowledge and skills related to child growth and development equip individuals to develop positive relationships with children and effective parenting and caregiver skills. Individuals use these skills to promote the well-being and healthy development of children, strengthen families in a culturally diverse society, and pursue careers related to the care and education of children.

(c) Knowledge and skills.

(1) Business management procedures. The student determines effective business management procedures for the child care industry. The student is expected to:

(A) analyze licensing and accreditation standards;

(B) adhere to minimum standards, organization goals, policies, and procedures in the child care setting;

(C) demonstrate effective management skills; and

(D) identify the chain of command and responsibilities of each employee.

(2) Business management procedures. The student analyzes the components of a safe and sanitary environment. The student is expected to:

(A) evaluate safety and sanitation standards in a child care setting;

(B) practice emergency and evacuation procedures;

(C) demonstrate first aid and cardiopulmonary resuscitation (CPR) techniques; and

(D) summarize environmental conditions appropriate for a child care setting.

(3) Business management procedures. The student analyzes procedures for promoting health and wellness in the child care setting. The student is expected to:

(A) observe screening and other health assessment techniques;

(B) describe effective methods of recording health-related information;

(C) explain state law in reporting suspected child abuse;

(D) utilize appropriate procedures for reporting accidents;

(E) practice techniques that promote good health and safety in young children; and

(F) describe appropriate methods of administering and storing medications.

(4) Influences on child growth and development. The student analyzes factors affecting growth and development of young children. The student is expected to:

(A) explain how children progress through developmental stages;

(B) determine developmental differences in children of various ages;

(C) identify characteristics indicative of special needs or disabilities in children;

(D) explain influences on the physical, emotional, social, and intellectual development of children;

(E) identify the effects of child abuse on the growth and development of young children; and

(F) determine how society, culture, and changing demographics affect the growth and development of young children.

(5) Influences on child growth and development. The student utilizes developmentally appropriate teaching strategies for young children. The student is expected to:

(A) apply the major learning theories when planning developmentally appropriate learning experiences for children;

(B) identify stimulating developmentally appropriate learning environments;

(C) demonstrate developmentally appropriate teaching methods and techniques;

(D) implement developmentally appropriate activities and lessons;

(E) develop appropriate adaptations of curriculum for children, including those with special needs;

(F) describe methods of assessing developmental levels of children;

(G) compare various observation techniques; and

(H) discuss the use of technology in teaching young children.

(6) Influences on child growth and development. The student evaluates the nutritional requirements and needs of young children. The student is expected to:

(A) determine the role of following food guidelines in promoting children's health;

(B) plan attractive nutritious snacks and meals;

(C) demonstrate safe and sanitary food handling practices;

(D) propose dietary modifications for special diet needs; and

(E) develop strategies for creating a relaxed mealtime routine.

(7) Interactions impacting behavioral development. The student appraises various guidance techniques utilized with children. The student is expected to:

(A) determine developmentally appropriate practices that promote self-discipline;

(B) practice effective communication skills;

(C) evaluate appropriate techniques to assist children in their adjustment to a child care setting;

(D) set up guidelines for assisting children with routine activities;

(E) propose developmentally appropriate practices that promote children's respect for diversity;

(F) identify guidance strategies for promoting positive behavior in children;

(G) describe guidance strategies for dealing with children's problems; and

(H) determine appropriate techniques when guiding children, including those with special needs.

(8) Interactions impacting behavioral development. The student analyzes behavior in children resulting from various family situations. The student is expected to:

(A) describe the impact of family beliefs, customs, and culture on children's behavior;

(B) explain how diversity of family units and roles may be reflected in a child's behavior;

(C) describe the impact of family crises on children and family;

(D) identify roles of family members in supporting children during crises;

(E) analyze the effect of family stability on children's behavior; and

(F) describe how child abuse affects behavior.

(9) Interactions impacting behavioral development. The student determines appropriate procedures to promote active parental involvement in the child care setting. The student is expected to:

(A) identify needs and opportunities for parental involvement in the child care setting;

(B) practice effective communication techniques that promote parental involvement; and

(C) implement strategies that enhance cooperation among the center, teacher, community, and family.

(10) Career preparation. The student exhibits employability skills that lead to job success in the child care industry. The student is expected to:

(A) demonstrate effective verbal, nonverbal, written, and electronic communication skills;

(B) demonstrate effective methods to secure, maintain, and terminate employment;

(C) demonstrate positive interpersonal skills including conflict resolution, negotiation, teamwork, and leadership;

(D) evaluate the relationship of good physical and mental health to job success and achievement;

(E) demonstrate appropriate grooming and appearance for the workplace;

(F) demonstrate appropriate business and personal etiquette in the workplace; and

(G) exhibit productive work habits and attitudes.

(11) Career preparation. The student determines employment opportunities and preparation requirements in the child care industry. The student is expected to:

(A) determine preparation requirements for various levels of employment in a variety of child care and early childhood education careers;

(B) analyze the future employment outlook in the child care industry;

(C) describe entrepreneurial opportunities in the child care industry;

(D) determine how interests, abilities, personal priorities, and family responsibilities affect career choice;

(E) compare rewards and demands for various levels of employment in a variety of careers; and

(F) determine continuing education opportunities that enhance career advancement and promote lifelong learning.

(12) Career preparation. The student demonstrates ethical and legal practices for careers in the child care industry. The student is expected to:

- (A) summarize the rights and responsibilities of employers and employees;
- (B) exhibit ethical practices as defined by industry standards;
- (C) discuss legislation and public policies affecting the child care profession; and
- (D) summarize legal aspects of the child care and guidance, management, and services industry.

(13) Career preparation. The student analyzes the management of multiple family, community, and wage-earner roles. The student is expected to:

- (A) analyze challenges of managing multiple family, community, and wage-earner roles; and
- (B) exhibit management practices facilitating individuals assuming multiple roles.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 15, 1997.

TRD-9706447

Criss Cloudt

Associate Commissioner, Policy Planning and Research
Texas Education Agency

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For further information, please call: (512) 463-9701



Subchapter E. Nutrition and Wellness, Food Science and Technology; High School

19 TAC §§122.41-122.43

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§122.41. Implementation of Texas Essential Knowledge and Skills for Home Economics Education, Nutrition and Wellness, Food Science and Technology; High School.

The provisions of Chapter 122, Subchapters B-K, shall supersede §75.83 of this title (relating to Vocational Home Economics) beginning September 1, 1998.

§122.42. Nutrition and Food Science (One-Half Credit).

(a) General requirements. This technical laboratory course is recommended for students in Grades 10-12.

(b) Introduction. Principles of food science, technology, and nutrition are interdependent with growth, development, health, and wellness. Individuals utilize these principles to make informed choices, promote good health, and pursue careers related to food science, technology, and nutrition.

(c) Knowledge and skills.

(1) Principles of nutrition. The student utilizes information about the basic principles of nutrition to promote healthy food choices. The student is expected to:

- (A) define commonly used terms related to nutrition, health, and wellness;
- (B) identify the nutrients, their functions, and food sources;
- (C) compare the nutritive value of various foods;
- (D) describe effects of nutritional intake on health, appearance, effective job performance, and personal life; and
- (E) explain the relationship of activity levels and calorie intake to health and wellness, including weight management.

(2) Principles of nutrition. The student determines the relationship of nutrition to individual and family health. The student is expected to:

- (A) outline strategies for prevention, treatment, and management of diet-related diseases and eating disorders;
- (B) explain the relationship of nutrition and stress;
- (C) summarize local, state, and federal legislation and policies pertaining to nutrition and health;
- (D) assess long-term effects of food choices; and
- (E) discuss food allergies and intolerances.

(3) Nutritionally-balanced diets. The student utilizes various dietary guidelines in making wise food choices. The student is expected to:

- (A) explain the food pyramid and various dietary guidelines;
- (B) compare recommended dietary allowances (RDA) throughout the life cycle;
- (C) set goals for good eating habits; and
- (D) apply dietary guidelines to meet nutritional needs throughout the life cycle.

(4) Nutritionally-balanced diets. The student analyzes nutritional adequacy of selected diets utilizing available technology. The student is expected to:

- (A) analyze the reliability of nutrition information;
- (B) evaluate nutritive supplements;
- (C) assess nutritional needs of persons at various activity levels;
- (D) use available technology to compare personal food intake to recommended guidelines;
- (E) interpret nutrition assessment data from available technology; and
- (F) utilize decision-making skills to improve eating habits, exercise, and management of optimum weight.

(5) Influences on food choices. The student evaluates influences on food choices. The student is expected to:

(A) identify ways food satisfies psychological and social needs;

(B) discuss the role peer pressure and media play in food selections;

(C) describe family eating patterns;

(D) compare past, current, and future family eating patterns;

(E) determine environmental influences on food choices;

(F) propose ways nutritional needs may be met by individuals in self-care, including children, older adults, and persons with special needs; and

(G) evaluate the most efficient use of fast foods and convenience foods as nutrition sources.

(6) Influences on food choices. The student exhibits an awareness of the variety of food choices available in our multicultural society. The student is expected to:

(A) analyze food customs of the community;

(B) explain the integral role food plays in family traditions, special occasions, religious events, and holiday celebrations;

(C) adjust traditional recipes to improve nutritional quality; and

(D) determine the effects of regional agriculture and technology on food choices.

(7) Food management skills. The student applies management principles in meeting nutritional needs. The student is expected to:

(A) describe a variety of consumer food-buying strategies;

(B) analyze the influence of advertising on consumer buying;

(C) read and interpret food labels;

(D) relate the effects of work space, tools, equipment, and technology on food preparation;

(E) determine ways family members assuming multiple roles can apply food management skills;

(F) analyze food costs and budgeting needs;

(G) design a variety of daily menus; and

(H) determine how technological advancements have impacted the nutritional value of foods.

(8) Food management skills. The student demonstrates safety and sanitation procedures. The student is expected to:

(A) identify potential safety and sanitation hazards;

(B) demonstrate safe and sanitary practices in the use, care, and storage of tools and equipment;

(C) describe food storage principles; and

(D) demonstrate safety and sanitation practices when handling, storing, preparing, and serving food.

(9) Food management skills. The student prepares and serves nutritious foods. The student is expected to:

(A) demonstrate skills and procedures in applying principles of food preparation;

(B) prepare nutritious foods appropriate for individuals, families, and small groups;

(C) practice etiquette, food presentation, and table service appropriate for specific situations; and

(D) participate as an effective team member by demonstrating cooperation and responsibility.

(10) Career preparation. The student determines opportunities and preparation requirements for careers in nutrition and the food industry. The student is expected to:

(A) determine employment and entrepreneurial opportunities and preparation requirements for careers in the nutrition and the food industry;

(B) compare personal characteristics to those needed for careers in nutrition and the food industry; and

(C) propose short-term and long-term career goals.

(11) Career preparation. The student exhibits employability skills. The student is expected to:

(A) describe management practices facilitating individuals assuming multiple family, community, and wage-earner roles;

(B) practice positive human-relations skills;

(C) demonstrate effective verbal, nonverbal, written, and electronic communication skills;

(D) demonstrate effective techniques to secure, maintain, and terminate employment;

(E) identify ethical practices in the workplace; and

(F) practice problem solving using leadership and teamwork skills.

(12) Career preparation. The student completes a supervised career-connections experience applying knowledge and skills developed in the study of nutrition and food science. The student is expected to:

(A) determine home and business applications of knowledge and skills developed in the study of nutrition and food science; and

(B) utilize a career-connections experience to demonstrate occupational applications of competencies developed in the study of nutrition and food science.

§122.43. *Food Science and Technology (One-Half Credit).*

(a) General requirements. This technical laboratory course is recommended for students in Grades 10-12. The recommended prerequisite for this course is Nutrition and Food Science.

(b) Introduction. Principles of food science, technology, and nutrition are interdependent with growth, development, health, and wellness. Individuals utilize these principles to make informed choices, promote good health, and pursue careers related to food science, technology, and nutrition.

(c) Knowledge and skills.

(1) Food science principles. The student relates nutritional adequacy to personal health. The student is expected to:

(A) describe the functions of nutrients in the body;

(B) analyze the relationship of nutrients and other factors to diet-related diseases and disorders;

(C) relate cultural food patterns to personal health; and

(D) analyze culturally diverse food choices that are nutritionally adequate.

(2) Food science principles. The student analyzes ways to maximize quality nutrition. The student is expected to:

(A) determine various methods for retaining nutrients and improving nutrient content in foods; and

(B) describe the impact of new technology on food science.

(3) Food science principles. The student evaluates a variety of changes, including chemical and physical, that affect food product quality. The student is expected to:

(A) apply science process skills in conducting laboratory activities;

(B) explain the chemical reactions that occur during food processing;

(C) compare the effects of various cooking utensils and equipment on food products;

(D) evaluate the effect of various temperatures, manipulative procedures, and leavening agents on food products; and

(E) apply the principles of food preparation to preserve quality and nutritive value of foods.

(4) Nutrition and health. The student uses knowledge of digestion and metabolism to establish lifelong habits of good nutrition and physical fitness. The student is expected to:

(A) describe the processes of digestion and metabolism;

(B) explain basal and activity metabolisms and factors that affect each; and

(C) apply knowledge of digestion and metabolism when making decisions related to food intake and physical fitness.

(5) Nutrition and health. The student utilizes available technology to plan diets appropriate for long-term health and wellness. The student is expected to:

(A) plan diets appropriate to life cycle, activity level, culture, gender, and food budget;

(B) develop examples of therapeutic diets;

(C) explain consequences of eating disorders on long-term health;

(D) devise strategies to deal with special dietary considerations including needs of women during pregnancy and lactation; and

(E) utilize various guidelines and technology in evaluating diets.

(6) Nutrition and health. The student evaluates resources in nutrition and food science. The student is expected to:

(A) evaluate resources that provide reliable nutrition information; and

(B) propose ways to disseminate reliable nutrition information.

(7) Food technology. The student evaluates technologies used in food processing and product development. The student is expected to:

(A) summarize new research and trends;

(B) assess methods of food processing and their impact on product quality and nutrition;

(C) explain the roles of additives in food processing; and

(D) contrast the effects of packaging on the properties and quality of the food and on the environment.

(8) Food technology. The student evaluates safety and sanitation standards. The student is expected to:

(A) describe properties of microorganisms that cause food spoilage and food-borne illness;

(B) outline sanitation and food-handling practices that can help prevent food contamination and food-borne illness;

(C) describe functions of government agencies that regulate food quality, wholesomeness, and safety; and

(D) analyze industry quality control standards and skills related to safety and safe working conditions.

(9) Food technology. The student differentiates the effects of technology on nutrition, the food supply, marketing, and distribution. The student is expected to:

(A) determine the effects of technological advances on food availability;

(B) interpret how consumer choice is influenced by market research and marketing in the field of food science and nutrition;

(C) summarize the relationship of entrepreneurial opportunities, technological advances, and marketing research; and

(D) determine the effects of advancements in food science and technology on family strengths and the welfare of family members.

(10) Food technology. The student utilizes research skills in conducting and evaluating scientific research in food science. The student is expected to:

(A) analyze various research methods used in food science, technology, and nutrition;

(B) describe ways to choose topics for research in food science, technology, and nutrition;

(C) evaluate research projects related to a current issue in food science, technology, and nutrition; and

(D) utilize research methods to create projects related to a current issue in food science, technology, and nutrition.

(11) World food supply. The student contrasts basic physical survival with quality of life. The student is expected to:

(A) describe the relationship of good health and nutrition to job performance and relationships;

(B) explain the relationship of the food supply to quality of life;

(C) explain how the long-term effects of hunger affect a society and world progress; and

(D) contrast the nutrition in developed and developing countries.

(12) World food supply. The student analyzes food supply, distribution, and nutrition from a global perspective. The student is expected to:

(A) analyze factors that influence the food chain, pricing, and choices;

(B) determine the demands placed on food science and technology by American societal patterns;

(C) describe technological, ecological, and sociological factors affecting world food supply;

(D) explain the roles that world food trade policies and governments play in world progress related to nutrition;

(E) describe international organizations dealing with world food supply and contributing to improved nutrition;

(F) analyze the problems of world hunger; and

(G) predict possible solutions to the problems of world hunger.

(13) Career preparation. The student determines opportunities and preparation requirements for careers in nutrition, food science, and food technology. The student is expected to:

(A) determine employment and entrepreneurial opportunities and preparation requirements for careers in nutrition, food science, and technology;

(B) compare personal characteristics to those needed for careers in nutrition, food science, and technology; and

(C) propose short-term and long-term career goals.

(14) Career preparation. The student exhibits employability skills. The student is expected to:

(A) describe management practices facilitating individuals assuming multiple family, community, and wage-earner roles;

(B) practice positive human-relations skills;

(C) demonstrate effective verbal, nonverbal, written, and electronic communication skills;

(D) demonstrate effective methods to secure, maintain, and terminate employment;

(E) identify ethical practices in the workplace; and

(F) practice problem solving, using leadership and teamwork skills.

(15) Career preparation. The student completes a supervised career-connections experience applying knowledge and skills developed in the study of food science and technology. The student is expected to:

(A) determine home and business applications of knowledge and skills developed in the study of food science and technology; and

(B) utilize a career-connections experience to demonstrate occupational applications of competencies developed in the study of food science and technology.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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For further information, please call: (512) 463-9701



Subchapter F. Hospitality, High School

19 TAC §§122.51-122.54

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§122.51. Implementation of Texas Essential Knowledge and Skills for Home Economics Education, Hospitality, High School.

The provisions of Chapter 122, Subchapters B-K, shall supersede §75.83 of this title (relating to Vocational Home Economics) beginning September 1, 1998.

§122.52. Food Production, Management, and Services (Two to Three Credits).

(a) General requirements. This course provides occupationally specific training and is recommended for students in Grades 11-12. Students may be awarded two to three credits per year for one to two years for the successful completion of this course. Instruction may be delivered through school-based pre-employment laboratory training or through work-based delivery arrangements such as cooperative education, preceptorships, mentoring, and job shadowing. The two recommended prerequisites for this course are: Nutrition and Food Science, Food Science and Technology.

(b) Introduction. The hospitality industry encompasses lodging, foodservice, and institutional services and boasts the largest national employment base in the private sector. Individuals utilize knowledge and skills that meet industry standards to function effectively in various positions within this multifaceted industry.

(c) Knowledge and skills.

(1) Food production and service industry. The student describes the structure of the food production and service industry. The student is expected to:

(A) describe the organizational structure of food production and service systems;

(B) describe market segments in the food production and service industry;

(C) analyze societal, cultural, ethnic, demographic, and economic factors affecting the food production and service industry;

(D) analyze the impact of technological innovations on the food production and service industry;

(E) summarize the roles and services of professional organizations serving the food production and service industry; and

(F) predict changes in the food production and service industry for the future.

(2) Food production and service industry. The student implements organizational goals, policies, and procedures of food production, management, and services. The student is expected to:

(A) identify policies related to wages, benefits, and performance of employees;

(B) evaluate considerations and accommodations for employees and customers with special needs;

(C) summarize the goals and mission of various food production and service organizations; and

(D) analyze the relationship of multicultural awareness to target markets and customer services.

(3) Food production and service industry. The student relates management functions to food production and services operations and organizational structure. The student is expected to:

(A) contrast various ownership and management structures in the food production and service industry;

(B) describe various types of food production and service operations;

(C) explain management functions in food production and service operations;

(D) explain components of a strategic business plan;

(E) analyze styles of supervision;

(F) analyze issues affecting management of human resources; and

(G) practice effective management of resources.

(4) Food production and service industry. The student describes the organization and functions of foodservice establishments. The student is expected to:

(A) describe types of establishments in commercial foodservice;

(B) describe forms of service utilized in foodservice establishments for presenting food to guests;

(C) explain the relationship of concept, market segment, menu, and theme in commercial foodservice;

(D) distinguish types of restaurant ownership;

(E) describe services to segments of the institutional foodservice industry; and

(F) explain how the menu reflects the foodservice plan for meeting customer needs and wants.

(5) Food production and service industry. The student utilizes marketing strategies for the food production and service industry. The student is expected to:

(A) analyze various types of marketing strategies;

(B) describe the roles of public relations and publicity in the food production and service industry;

(C) explain the types of direct marketing materials;

(D) explain the use of special events and promotions in the food production and service industry; and

(E) apply available technological innovations utilized in the food production and service industry to enhance sales and marketing strategies.

(6) Food production and service industry. The student describes legal considerations of the food production and service industry. The student is expected to:

(A) summarize legislation, government regulations, and public policy affecting the food production and service industry;

(B) describe considerations regarding liability for injuries or damages to customers, employees, or facilities; and

(C) interpret laws and policies pertaining to food production and service establishments.

(7) Food production, foodservice, and quality assurance. The student demonstrates safe and efficient employee and workplace practices in the food production and service industry. The student is expected to:

(A) determine employer and employee responsibilities for workplace safety;

(B) evaluate regulations and standards guiding safety in the food production and service industry;

(C) identify major causes of accidents and ways to prevent them;

(D) demonstrate emergency first aid procedures;

(E) follow employer policies for handling emergencies;

(F) analyze the division of workplace responsibilities;

(G) use appropriate terminology related to the food production and service industry; and

(H) implement appropriate work-simplification procedures when performing assigned tasks.

(8) Food production, foodservice, and quality assurance. The student practices effective food safety and sanitation techniques in food production and service operations. The student is expected to:

(A) comply with government regulations and policies that apply to food safety and sanitation techniques utilized in food production and service;

(B) practice correct sanitation procedures in food production and service operations;

(C) describe food-borne illnesses, their causes, and prevention methods;

(D) explain the implications of temperature on the storage, preparation, and handling of food;

(E) follow appropriate procedures for the acquisition, preparation, handling, and storage of food and supplies;

(F) maintain acceptable standards in employee grooming, health, and hygiene;

(G) utilize procedures that protect the environment; and

(H) describe environmental factors affecting safe food production.

(9) Food production, foodservice, and quality assurance. The student demonstrates skills and techniques needed for quality food production. The student is expected to:

(A) utilize effective planning strategies for food production operations;

(B) analyze the relationship of effective menu planning to successful food production operations;

(C) practice cost control techniques in food production operations;

(D) demonstrate appropriate use, care, and maintenance of tools, utensils, and equipment utilized in food production;

(E) utilize appropriate techniques for preparation and presentation in food production operations according to industry standards;

(F) follow standardized recipes utilized in food production;

(G) apply nutrition principles in planning, preparation, and presentation for food production operations;

(H) describe food preparation strategies for meeting special dietary requirements;

(I) describe food production skills, procedures, and techniques utilized in catering and other specialized food production operations;

(J) perform appropriate tasks in food production according to industry standards; and

(K) apply available technology in food production.

(10) Food production, foodservice, and quality assurance. The student utilizes effective procedures for achieving quality standards in foodservice operations. The student is expected to:

(A) describe roles and responsibilities in foodservice operations;

(B) analyze personal qualities and skills required of foodservice employees;

(C) utilize appropriate techniques for presentation and service in foodservice operations according to industry standards;

(D) select equipment and utensils appropriate for prescribed tasks;

(E) perform appropriate tasks in foodservice according to industry standards;

(F) practice cost control techniques in foodservice operations; and

(G) apply available technology in foodservice.

(11) Food production, foodservice, and quality assurance. The student practices positive techniques for maintaining client relationships, customer satisfaction, and customer service. The student is expected to:

(A) identify potential clients and their foodservice needs;

(B) compare various ways of building and maintaining client-based services;

(C) analyze various companies' practices regarding customer satisfaction;

(D) apply techniques that promote customer service and satisfaction;

(E) utilize strategies for complaint resolution;

(F) demonstrate friendly customer service;

(G) evaluate criteria affecting quality service; and

(H) implement quality assurance standards in all aspects of the food production and service industry.

(12) Career preparation. The student exhibits employability skills that lead to job success in food production, management, and services. The student is expected to:

(A) demonstrate effective verbal, nonverbal, written, and electronic communication skills;

(B) demonstrate effective methods to secure, maintain, and terminate employment;

(C) demonstrate positive interpersonal skills including conflict resolution, negotiation, teamwork, and leadership;

(D) evaluate the relationship of good physical and mental health to job success and achievement;

(E) demonstrate appropriate grooming and appearance for the workplace;

(F) demonstrate appropriate business and personal etiquette in the workplace; and

(G) exhibit productive work habits and attitudes.

(13) Career preparation. The student determines employment opportunities and preparation requirements in food production, management, and services. The student is expected to:

(A) determine preparation requirements for various levels of employment in a variety of food production, management, and services careers;

(B) analyze the future employment outlook in food production, management, and services;

(C) describe entrepreneurial opportunities in food production, management, and services;

(D) determine how interests, abilities, personal priorities, and family responsibilities affect career choice;

(E) compare rewards and demands for various levels of employment in a variety of careers; and

(F) determine continuing education opportunities that enhance career advancement and promote lifelong learning.

(14) Career preparation. The student demonstrates ethical practices in food production, management, and service careers. The student is expected to:

(A) summarize the rights and responsibilities of employers and employees; and

(B) exhibit ethical practices as defined by the food production and service industry.

(15) Career preparation. The student analyzes the management of multiple family, community, and wage-earner roles. The student is expected to:

(A) analyze challenges of managing multiple family, community, and wage-earner roles; and

(B) exhibit management practices facilitating individuals assuming multiple roles.

§122.53. Hospitality Services (Two to Three Credits).

(a) General requirements. This course provides occupationally specific training and is recommended for students in Grades 11-12. Students may be awarded two to three credits per year for one to two years for the successful completion of this course. Instruction may be delivered through school-based pre-employment laboratory training or through work-based delivery arrangements such as cooperative education, preceptorships, mentoring, and job shadowing. The two recommended prerequisites for this course are: Nutrition and Food Science, Food Science and Technology.

(b) Introduction. The hospitality industry encompasses lodging, foodservice, and institutional services and boasts the largest national employment base in the private sector. Individuals utilize knowledge and skills that meet industry standards to function effectively in various positions within this multifaceted industry.

(c) Knowledge and skills.

(1) Hospitality industry orientation. The student analyzes the hospitality industry from past, present, and future perspectives. The student is expected to:

(A) outline the history of the hospitality industry;

(B) explain the complexity and diversity of the current hospitality industry;

(C) analyze the impact of societal, cultural, and demographic trends on the hospitality industry;

(D) evaluate considerations and accommodations for employees and guests with special needs;

(E) analyze the effects of the global economy on the hospitality industry;

(F) describe the impact of technological innovations on the hospitality industry;

(G) summarize the roles and services of professional organizations serving the hospitality industry; and

(H) predict future changes in the hospitality industry.

(2) Hospitality industry orientation. The student incorporates the concept of service in work roles within the hospitality industry. The student is expected to:

(A) identify service as a strategic component of an employee's behavior in the hospitality industry;

(B) analyze service methods that fulfill needs of guests and customers;

(C) demonstrate types of service required of "front of the house" and "back of the house" employees;

(D) evaluate the relationship between employee responses and guest satisfaction;

(E) assess quality service in various work roles; and

(F) utilize strategies for complaint resolution.

(3) Hospitality industry orientation. The student relates management functions to property operation and organizational structure. The student is expected to:

(A) describe various types of hospitality operations;

(B) contrast various ownership and management structures in the hospitality industry;

(C) explain management functions related to operations in the hospitality industry;

(D) explain components of a strategic business plan; and

(E) analyze styles of supervision.

(4) Hospitality industry orientation. The student describes legal considerations of the hospitality industry. The student is expected to:

(A) summarize legislation, government regulations, and public policy affecting the hospitality industry;

(B) describe considerations regarding liability for injuries or damages to guests, employees, or property; and

(C) explain liability related to guest privacy.

(5) Hospitality industry orientation. The student demonstrates ethical practices for careers in hospitality services. The student is expected to:

(A) outline the rights and responsibilities of employers and employees;

(B) demonstrate ethical practices as defined by industry standards; and

(C) discuss ethical considerations impacted by technological innovations.

(6) Lodging. The student analyzes the structure of the lodging industry. The student is expected to:

(A) explain classifications of lodging properties by affiliation, levels of service, ownership, size, and target market;

(B) describe types of lodging properties based on market segment;

(C) describe the market price level classification of lodging properties;

(D) summarize the goals and mission of various lodging organizations;

(E) differentiate revenue centers and support centers in lodging operations; and

(F) analyze the relationship of multicultural awareness to target markets and guest services.

(7) Lodging. The student performs appropriate work roles within the rooms division. The student is expected to:

(A) describe roles and responsibilities of the departments within the rooms division;

(B) exhibit personal qualities and skills required of employees within each department;

(C) describe specific duties of employees in various departments;

(D) perform appropriate tasks according to industry standards; and

(E) apply available technological innovations to operations within the rooms division.

(8) Support operations. The student performs appropriate work roles within the sales and marketing division. The student is expected to:

(A) describe roles and responsibilities of the departments within the sales and marketing divisions;

(B) display personal qualities and skills required of employees within each department;

(C) describe specific duties of employees in various departments;

(D) perform appropriate tasks according to industry standards;

(E) compare various marketing methods utilized in the hospitality industry; and

(F) apply technological innovations to facilitate sales and marketing division operations.

(9) Support operations. The student performs appropriate work roles within the human resources division. The student is expected to:

(A) describe functions of the human resources division;

(B) exhibit personal qualities and skills required of employees within the human resources division;

(C) describe specific duties of employees in the human resources division;

(D) perform appropriate tasks according to industry standards;

(E) analyze issues affecting human resources management; and

(F) apply available technological innovations to operations within the human resources division.

(10) Support operations. The student performs appropriate work roles within the accounting division. The student is expected to:

(A) describe functions of the accounting division;

(B) exhibit personal qualities and skills required of employees within the accounting division;

(C) describe specific duties of employees in the accounting division;

(D) perform appropriate tasks according to industry standards;

(E) analyze the relationship between the front office and the accounting division; and

(F) apply available technological innovations to operations within the accounting division.

(11) Support operations. The student performs appropriate work roles within the security division. The student is expected to:

(A) describe roles and responsibilities of the security division;

(B) exhibit personal qualities and skills required of employees within the security division;

(C) describe specific duties of employees in the security division;

(D) perform appropriate tasks according to industry standards;

(E) determine security policies and training used in lodging operations;

(F) analyze the relationship between the security division and front desk operations;

(G) outline procedures for the safety and security of guests and employees; and

(H) apply available technological innovations to operations within the security division.

(12) Support operations. The student performs appropriate work roles within the engineering division. The student is expected to:

(A) describe functions of the engineering division;

(B) exhibit personal qualities and skills required of employees within the engineering division;

(C) describe specific duties of employees in the engineering division;

(D) perform appropriate tasks according to industry standards;

(E) analyze the relationship between the engineering division and front desk operations; and

(F) apply available technological innovations to operations within the engineering division.

(13) Food and beverage. The student analyzes the structure of the foodservice industry. The student is expected to:

(A) distinguish between commercial and institutional foodservice;

(B) describe market segments in the foodservice industry;

(C) identify food and beverage operations within businesses;

(D) describe the different food and beverage operations within lodging properties; and

(E) apply available technological innovations to food and beverage operations.

(14) Food and beverage. The student performs appropriate work roles in food and beverage operations. The student is expected to:

(A) describe roles and responsibilities in food and beverage operations;

(B) exhibit personal qualities and skills required of foodservice employees;

(C) perform appropriate tasks according to industry standards;

(D) apply management principles in work roles related to food and beverage operations;

(E) apply nutrition principles in food and beverage planning, preparation, and presentation;

(F) utilize appropriate techniques for preparation, presentation, and service in food and beverage operations;

(G) select equipment and utensils appropriate for prescribed tasks;

(H) summarize government regulations affecting food safety and sanitation;

(I) practice safety and sanitation procedures in food and beverage operations; and

(J) explain approaches that protect the environment.

(15) Food and beverage. The student explains the organization and functions of foodservice establishments. The student is expected to:

(A) describe types of establishments in commercial foodservice;

(B) describe forms of service utilized in food and beverage operations;

(C) explain the relationship of concept, market segment, menu, and theme in commercial foodservice;

(D) distinguish types of restaurant ownership;

(E) describe services to segments of the institutional foodservice industry;

(F) explain how the menu reflects the foodservice plan for meeting customer needs and wants; and

(G) evaluate criteria affecting quality of service.

(16) Career preparation. The student exhibits employability skills that lead to job success in the hospitality services industry. The student is expected to:

(A) demonstrate effective verbal, nonverbal, written, and electronic communication skills;

(B) demonstrate effective methods to secure, maintain, and terminate employment;

(C) demonstrate positive interpersonal skills including conflict resolution, negotiation, teamwork, and leadership;

(D) evaluate the relationship of good physical and mental health to job success and achievement;

(E) demonstrate appropriate grooming and appearance for the workplace;

(F) demonstrate appropriate business and personal etiquette in the workplace; and

(G) exhibit productive work habits and attitudes.

(17) Career preparation. The student determines employment opportunities and preparation requirements in the hospitality services industry. The student is expected to:

(A) determine preparation requirements for various levels of employment in a variety of careers in the hospitality services industry;

(B) analyze the future employment outlook in the hospitality services industry;

(C) describe entrepreneurial opportunities in the hospitality services industry;

(D) determine how interests, abilities, personal priorities, and family responsibilities affect career choice;

(E) compare rewards and demands for various levels of employment in a variety of careers; and

(F) determine continuing education opportunities that enhance career advancement and promote lifelong learning.

(18) Career preparation. The student analyzes the management of multiple family, community, and wage-earner roles. The student is expected to:

(A) analyze challenges of managing multiple family, community, and wage-earner roles; and

(B) exhibit management practices facilitating individuals assuming multiple roles.

§122.54. Institutional Maintenance Management and Services (Two to Three Credits).

(a) General requirements. This course provides occupationally specific training and is recommended for students in Grades 11-12. Students may be awarded two to three credits per year for one to two years for the successful completion of this course. Instruction

may be delivered through school-based pre-employment laboratory training or through work-based delivery arrangements such as cooperative education, preceptorships, mentoring, and job shadowing. The recommended prerequisite for this course is Management.

(b) Introduction. The hospitality industry encompasses lodging, foodservice, and institutional services and boasts the largest national employment base in the private sector. Individuals utilize knowledge and skills that meet industry standards to function effectively in various positions within this multifaceted industry.

(c) Knowledge and skills.

(1) Institutional maintenance management. The student demonstrates routine practices and procedures related to institutional maintenance. The student is expected to:

- (A) identify routine maintenance practices of a specific business;
- (B) explain the organizational structure of a specific business;
- (C) adhere to company policies and procedures;
- (D) determine societal, cultural, and demographic factors influencing institutional maintenance practices and procedures; and
- (E) describe institutional maintenance practices to accommodate employees or others with special needs.

(2) Institutional maintenance management. The student determines characteristics of effective managers and supervisors. The student is expected to:

- (A) evaluate management styles;
- (B) analyze leadership responsibilities;
- (C) identify fiscal management responsibilities; and
- (D) explain the role of management in compliance with local, state, and federal laws and policies.

(3) Institutional maintenance management. The student demonstrates effective techniques for maintaining client relationships. The student is expected to:

- (A) assess characteristics of positive client relationships;
- (B) describe how societal and cultural patterns influence communication;
- (C) discuss issues of confidentiality, respect, and acceptance that impact client relations; and
- (D) differentiate marketing and public relations plans effective for various types of operations.

(4) Sanitation and safety. The student applies safety and sanitation techniques when performing assigned tasks. The student is expected to:

- (A) evaluate potential safety hazards in the workplace;
- (B) practice procedures that contribute to safe working conditions;
- (C) apply safety and sanitation procedures when performing assigned tasks; and

(D) analyze government regulations impacting safety and sanitation practices in institutional maintenance operations.

(5) Sanitation and safety. The student exhibits practices that promote environmental protection and employee health and safety. The student is expected to:

- (A) demonstrate safe and responsible storage, use, and disposal of materials;
- (B) describe environmental issues specific to an assigned workplace; and
- (C) demonstrate appropriate responses to emergency situations.

(6) Institutional maintenance procedures. The student applies required methods and sequences in performing assigned tasks. The student is expected to:

- (A) analyze principles of time management and work-simplification when performing assigned tasks;
- (B) demonstrate how to function effectively when performing routine procedures and practices related to specific businesses; and
- (C) predict the impact of effective time management and work simplification on the cost of institutional maintenance.

(7) Institutional maintenance procedures. The student utilizes appropriate equipment, supplies, and procedures for completion of assigned tasks. The student is expected to:

- (A) develop guidelines for selecting equipment, supplies, and procedures for assigned tasks;
- (B) apply appropriate procedures while operating equipment and using tools and products in the performance of assigned tasks;
- (C) describe the impact of technology on equipment, supplies, and procedures utilized in the industry;
- (D) describe appropriate procedures for completing a variety of tasks involved in institutional maintenance;
- (E) demonstrate correct procedures for displaying flags; and
- (F) predict institutional maintenance cost variances based on material, surface, and furnishing considerations.

(8) Institutional maintenance procedures. The student applies appropriate procedures for cleaning and sanitizing guest and patient rooms. The student is expected to:

- (A) exhibit work simplification techniques and prescribed procedures for specific cleaning tasks;
- (B) determine appropriate responses in accommodating guest and patient requests;
- (C) apply safe and sanitary techniques when handling soiled linens and disposable materials;
- (D) describe appropriate respect and care for personal property of guests and patients; and
- (E) apply recommended procedures for entering and exiting guest and patient rooms.

(9) Institutional maintenance procedures. The student performs laundry tasks in accordance with required procedures. The student is expected to:

(A) perform appropriate laundry tasks according to industry standards;

(B) compare a variety of laundry products and their suitability for specific uses;

(C) explain the importance of prelaundry procedures;

(D) differentiate the functions of thermal, mechanical, and chemical energy in laundry operations;

(E) describe procedures for appropriately folding, storing, mending, and recycling linens; and

(F) describe procedures for handling and cleaning contaminated linens.

(10) Career preparation. The student exhibits employability skills that lead to job success in institutional maintenance management and services. The student is expected to:

(A) demonstrate effective verbal, nonverbal, written, and electronic communication skills;

(B) demonstrate effective methods to secure, maintain, and terminate employment;

(C) demonstrate positive interpersonal skills including conflict resolution, negotiation, teamwork, and leadership;

(D) evaluate the relationship of good physical and mental health to job success and achievement;

(E) demonstrate appropriate grooming and appearance for the workplace;

(F) demonstrate appropriate business and personal etiquette in the workplace; and

(G) exhibit productive work habits and attitudes.

(11) Career preparation. The student determines employment opportunities and preparation requirements in the institutional maintenance management and services industry. The student is expected to:

(A) determine preparation requirements for various levels of employment in a variety of institutional maintenance management and services careers;

(B) analyze the future employment outlook in the institutional maintenance management and services industry;

(C) describe entrepreneurial opportunities in institutional maintenance management and services;

(D) determine how interests, abilities, personal priorities, and family responsibilities affect career choice;

(E) compare rewards and demands for various levels of employment in a variety of careers;

(F) determine continuing education opportunities that enhance career advancement and promote lifelong learning;

(G) predict the impact of technological advancements on the institutional maintenance management and services industry; and

(H) analyze economic, cultural, and societal influences on the industry.

(12) Career preparation. The student demonstrates ethical and legal practices for careers in institutional maintenance management and services. The student is expected to:

(A) summarize the rights and responsibilities of employers and employees;

(B) exhibit ethical practices as defined by the institutional maintenance management and services industry; and

(C) analyze legal aspects of the institutional maintenance management and services industry.

(13) Career preparation. The student analyzes the management of multiple family, community, and wage-earner roles. The student is expected to:

(A) analyze challenges of managing multiple family, community, and wage-earner roles; and

(B) exhibit management practices facilitating individuals assuming multiple roles.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

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Subchapter G. Consumer and Resource Management, High School

19 TAC §§122.61-122.63

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§122.61. Implementation of Texas Essential Knowledge and Skills for Home Economics Education, Consumer and Resource Management, High School.

The provisions of Chapter 122, Subchapters B-K, shall supersede §75.83 of this title (relating to Vocational Home Economics) beginning September 1, 1998.

§122.62. Management (One-Half Credit).

(a) General requirements. This technical course is recommended for students in Grades 10-12.

(b) Introduction. Consumer and resource management focuses on consumer practices and responsibilities, the management process, decision-making skills, career preparation, and the impact of technology on individual and family life. Individuals utilize acquired knowledge and skills to develop consumer and financial manage-

ment expertise, occupational competence, and proficiency in managing multiple roles.

(c) Knowledge and skills.

(1) Management tools. The student utilizes the decision-making process to enhance the quality of life. The student is expected to:

(A) analyze the various steps in the decision-making process;

(B) explain how personal decision making is affected by sociological, emotional, cultural, socioeconomic, and family influences;

(C) determine the role of responsibility and personal priorities in the decision-making process;

(D) describe the role of planning in effective utilization of the decision-making process; and

(E) utilize the decision-making process in solving problems and managing peer pressure.

(2) Management tools. The student applies the goal-setting process as a management tool. The student is expected to:

(A) identify various categories of goals;

(B) explain how goals change throughout the life cycle;

(C) analyze factors that influence goal setting;

(D) describe the role of planning in effective utilization of the goal-setting process; and

(E) utilize the goal-setting process.

(3) Management tools. The student demonstrates skills, characteristics, and responsibilities of leaders and effective team members. The student is expected to:

(A) utilize parliamentary procedure as a management tool; and

(B) practice problem solving through leadership and teamwork skills.

(4) Management of resources. The student applies effective practices for managing time, energy, and money resources. The student is expected to:

(A) create a daily time and work plan to accomplish goals;

(B) demonstrate strategies for effective time and energy management;

(C) determine the importance of time, energy, and money management;

(D) identify the components of money management;

(E) determine influences of societal, economic, and changing demographic factors on the management of time, energy, and money;

(F) describe the use of technology as a life management resource; and

(G) describe community resources enabling individuals to better manage time, energy, and money.

(5) Management of resources. The student distinguishes methods of personal risk management. The student is expected to:

(A) determine strategies for coping with financial emergencies;

(B) identify various types of insurance and their role in personal risk management; and

(C) analyze investment and retirement options and their role in personal risk management.

(6) Management of resources. The student utilizes effective environmental resource management practices. The student is expected to:

(A) identify environmental resources, issues, and preservation practices;

(B) determine the effect of environmental neglect on economics, health, safety, and quality of life;

(C) propose personal, family, and community strategies for preserving the environment; and

(D) demonstrate home and employment practices for preserving personal safety and the environment.

(7) Management of resources. The student determines effective strategies for human resource management. The student is expected to:

(A) identify examples of human resources;

(B) demonstrate the use of delegation and division of tasks as techniques for managing human resources; and

(C) determine strategies for managing human resources in personal, family, career, and community settings.

(8) Management of multiple roles. The student predicts the implications of assuming multiple roles within the life span. The student is expected to:

(A) identify roles common within the life span;

(B) analyze changes in personal and family priorities within the life span;

(C) summarize responsibilities and rewards of various roles;

(D) describe conflicts and challenges of managing multiple family, community, and wage-earner roles;

(E) determine how family life is impacted by the effectiveness of managing multiple family, community, and wage-earner roles; and

(F) determine how occupational performance is impacted by the effectiveness of managing multiple family, community, and wage-earner roles.

(9) Management of multiple roles. The student utilizes management techniques required when assuming multiple family, community, and wage-earner roles. The student is expected to:

(A) determine the effect of various community and career roles on personal and family life;

(B) analyze cultural influences on the management of multiple family, community, and wage-earner roles;

(C) propose management strategies for effectively managing multiple roles; and

(D) propose effective techniques for managing stress.

(10) Management of multiple roles. The student utilizes interpersonal skills in managing family, community, and wage-earner roles. The student is expected to:

(A) practice techniques for effective communication;

(B) determine the relationship of personal priorities to family and employment needs;

(C) utilize conflict resolution, assertiveness, and negotiation techniques; and

(D) determine ways that assertiveness, conflict resolution, and negotiation skills can be utilized in managing family, community, and wage-earner roles.

(11) Career preparation. The student analyzes components of responsible behavior. The student is expected to:

(A) analyze one's responsibilities to family, employer, community, and society;

(B) identify personal short-term and long-term goals that contribute to responsible behavior; and

(C) propose strategies for demonstrating personal responsibility through community service.

(12) Career preparation. The student analyzes management as an employability skill fundamental to all careers as well as being an occupational field itself. The student is expected to:

(A) explain the importance of effective management skills for enhancing job performance;

(B) determine employment and entrepreneurial opportunities and preparation requirements in the field of management;

(C) demonstrate effective verbal, nonverbal, written, and electronic communication skills;

(D) demonstrate effective techniques to secure, maintain, and terminate employment;

(E) practice positive human-relations skills;

(F) appraise the impact of technology on management career opportunities; and

(G) appraise the impact of societal, cultural, and changing demographic factors on management career opportunities.

(13) Career preparation. The student completes a supervised career-connections experience applying knowledge and skills developed in the study of management. The student is expected to:

(A) determine home and business applications of knowledge and skills developed in the study of management; and

(B) utilize a career-connections experience to demonstrate occupational applications of competencies developed in the study of management.

§122.63. *Consumer and Family Economics (One-Half Credit).*

(a) General requirements. This technical course is recommended for students in Grades 10-12.

(b) Introduction. Consumer and resource management focuses on consumer practices and responsibilities, the management process, decision-making skills, career preparation, and the impact of technology on individual and family life. Individuals utilize acquired knowledge and skills to develop consumer and financial management expertise, occupational competence, and proficiency in managing multiple roles.

(c) Knowledge and skills.

(1) Management of financial resources. The student incorporates the management process in financial planning to enhance economic security for individuals and families. The student is expected to:

(A) utilize the decision-making process in financial planning and management;

(B) determine the use of human and nonhuman resources in financial management;

(C) describe effects of individual and family priorities on financial decisions across the life span; and

(D) describe effects of cultural, demographic, and societal factors on family financial decisions.

(2) Management of financial resources. The student analyzes family economics throughout the family life cycle. The student is expected to:

(A) describe stages of the family life cycle;

(B) identify financial obligations and opportunities throughout the family life cycle;

(C) explain the effect of local, national, and global economics on families throughout the family life cycle;

(D) determine the influences of changing demographics on the family life cycle;

(E) analyze living costs such as housing, food, and transportation throughout the life cycle; and

(F) analyze the economic impact of crises on the family.

(3) Management of financial resources. The student determines the impact of technology as a financial management resource. The student is expected to:

(A) describe uses of technology for financial management processes;

(B) determine the impact of technology on marketing strategies and consumer fraud; and

(C) summarize uses of technology in communication and information access.

(4) Government, the economy, and societal issues. The student analyzes the role of government in personal and family economics. The student is expected to:

(A) identify local, state, and national government services affecting the consumer;

(B) assess current laws and the impact on rights and responsibilities of the consumer;

(C) describe consumer protection policies and practices;

(D) describe how the consumer is affected by tax laws and the U.S. economy; and

(E) explain the principle of "opportunity costs" and how it affects family financial decisions.

(5) Government, the economy, and societal issues. The student determines the impact of the U.S. economy on individuals and families. The student is expected to:

(A) summarize effects of the free enterprise system on families;

(B) analyze how family spending decisions are affected by competition, profit, and supply and demand; and

(C) determine how technology used in the banking and financial industry impacts the individual and family.

(6) Government, the economy, and societal issues. The student analyzes issues affecting consumers and the U.S. economy. The student is expected to:

(A) discuss the economic impact on consumers of legislation dealing with issues such as global markets, welfare, crime, and immigration; and

(B) analyze economic rights and responsibilities of individuals and families as consumers.

(7) Economic security. The student assesses factors affecting the production and use of income. The student is expected to:

(A) determine sources of income;

(B) describe effects of personal and family priorities and goals on income and financial planning;

(C) evaluate the effectiveness of financial planning in reflecting personal and family goals;

(D) summarize the effects of external economic influences on spending decisions; and

(E) determine the components of effective consumer buying.

(8) Economic security. The student explains the relationship of financial planning to economic security. The student is expected to:

(A) identify components of a budget;

(B) explain the functions, types, and services of financial institutions;

(C) identify savings and investment opportunities;

(D) relate insurance types to individual and family needs;

(E) explain the relationship between retirement planning and family financial security;

(F) compare sources and costs of credit;

(G) describe effective use of credit;

(H) develop an effective individual or family budget and record keeping system;

(I) utilize technology to examine personal financial management plans; and

(J) identify professional financial planning resources.

(9) Career preparation. The student exhibits employability skills transferable to multiple careers. The student is expected to:

(A) determine various careers compatible with personal characteristics, interests, and abilities;

(B) demonstrate verbal, nonverbal, written, and electronic communication skills;

(C) assess interpersonal skills and attitudes appropriate for the workplace;

(D) describe grooming, dress, and etiquette appropriate for the workplace;

(E) demonstrate skills, characteristics, and responsibilities of leaders and effective team members;

(F) analyze transferable financial and business management skills;

(G) determine continuing education opportunities that enhance career options, career advancement, and lifelong learning; and

(H) demonstrate effective techniques to secure, maintain, and terminate employment.

(10) Career preparation. The student analyzes career choices available in consumer and resource management. The student is expected to:

(A) determine employment and entrepreneurial opportunities and preparation requirements in the field of consumer and resource management;

(B) determine potential income, job availability, and geographical influences of career options;

(C) determine strategies for managing multiple family, community, and wage-earner roles; and

(D) utilize short-term and long-term career goals and career information to develop a personal career plan.

(11) Career preparation. The student completes a supervised career-connections experience applying knowledge and skills developed in the study of consumer and family economics. The student is expected to:

(A) determine home and business applications of knowledge and skills developed in the study of consumer and family economics; and

(B) utilize a career-connections experience to demonstrate occupational applications of competencies developed in the study of consumer and family economics.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Subchapter H. Textiles and Apparel, High School

19 TAC §§122.71-122.74

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§122.71. Implementation of Texas Essential Knowledge and Skills for Home Economics Education, Textiles and Apparel, High School.

The provisions of Chapter 122, Subchapters B-K, shall supersede §75.83 of this title (relating to Vocational Home Economics) beginning September 1, 1998.

§122.72. Apparel (One-Half Credit).

(a) General requirements. This technical laboratory course is recommended for students in Grades 10-12.

(b) Introduction. The textile and apparel industries encompass the production, marketing, and consumption of textile and apparel products. Individuals use knowledge and skills to function effectively as consumers and in careers related to the textile and apparel industries.

(c) Knowledge and skills.

(1) Consumer skills. The student uses effective decision-making skills when selecting and purchasing apparel. The student is expected to:

(A) describe social, cultural, and life-cycle influences on apparel preferences and management;

(B) explain how patterns of living and the life cycle affect apparel choices and management;

(C) apply principles of effective wardrobe planning;

(D) explain fashion trends and how they are determined;

(E) analyze the influence of advertising on consumer apparel choices;

(F) describe the elements and principles of design and their influence on apparel purchases;

(G) evaluate textile products as to suitability for varied apparel uses; and

(H) determine apparel management techniques for individuals with special needs.

(2) Consumer skills. The student selects proper care and maintenance practices for apparel. The student is expected to:

(A) interpret labeling information to determine care procedures for apparel products;

(B) evaluate clothing-care products and equipment;

(C) determine proper equipment and/or services related to care, maintenance, and storage of apparel;

(D) identify proper safety procedures when using care products and equipment; and

(E) analyze the impact of clothing-care requirements on clothing selection and the clothing budget.

(3) Consumer skills. The student effectively manages the apparel dollar. The student is expected to:

(A) explain human and financial resources affecting individual and family clothing decisions;

(B) propose practices for effectively managing apparel and accessory costs, care, and maintenance in the individual and family budget;

(C) compare various sources for apparel purchases;

(D) predict the impact of technology on consumer apparel purchasing options; and

(E) develop ideas for recycling apparel.

(4) The apparel industry. The student evaluates factors influencing the apparel industry. The student is expected to:

(A) describe the interrelationship of the apparel industry to the U.S. and international economy;

(B) identify sources of textile and apparel products;

(C) explain the impact of labor laws;

(D) analyze factors that contribute to a safe working environment;

(E) summarize procedures within the apparel industry that protect the environment; and

(F) describe technological advancements influencing the apparel industry.

(5) The apparel industry. The student analyzes the influence of design elements and principles in apparel. The student is expected to:

(A) analyze application of the elements and principles of design in apparel; and

(B) describe the impact of technology on apparel design and production.

(6) The apparel industry. The student demonstrates effective repair, alteration, and production techniques. The student is expected to:

(A) describe principles of quality apparel construction;

(B) demonstrate appropriate use and care of equipment, tools, and notions;

(C) practice effective pressing, repair, and alteration;

(D) apply basic apparel production skills if training for a career in the apparel industry;

(E) utilize planning, organization, management, and sequencing when repairing, altering, and/or producing apparel; and

(F) determine apparel design and alterations to accommodate individuals with special needs.

(7) Career preparation. The student exhibits employability skills appropriate for careers in the apparel industry. The student is expected to:

(A) demonstrate effective methods to secure, maintain, and terminate employment;

(B) demonstrate effective verbal, nonverbal, written, and electronic communication skills;

(C) practice positive human-relations skills; and

(D) demonstrate skills, characteristics, and responsibilities of leaders and effective team members.

(8) Career preparation. The student makes informed career decisions that reflect personal, family, and career goals. The student is expected to:

(A) evaluate employment and entrepreneurial opportunities and preparation requirements for careers in the apparel industry; and

(B) describe management practices facilitating individuals assuming multiple family, community, and wage-earner roles.

(9) Career preparation. The student completes a supervised career-connections experience applying knowledge and skills developed in the study of apparel. The student is expected to:

(A) determine home and business applications of knowledge and skills developed in the study of apparel; and

(B) utilize a career-connections experience to demonstrate occupational applications of competencies developed in the study of apparel.

§122.73. Textile and Apparel Design (One-Half Credit).

(a) General requirements. This technical laboratory course is recommended for students in Grades 10-12. The recommended prerequisite for this course is Apparel.

(b) Introduction. The textile and apparel industries encompass the production, marketing, and consumption of textile and apparel products. Individuals use knowledge and skills to function effectively as consumers and in careers related to the textile and apparel industries.

(c) Knowledge and skills.

(1) The textile and apparel industries. The student utilizes knowledge of textile and apparel manufacturing systems. The student is expected to:

(A) summarize all aspects of the textile and apparel industries;

(B) identify the processes for apparel product completion;

(C) compare the organizational structures common in textile and apparel manufacturing;

(D) describe mass production techniques;

(E) describe industry standards for quality control;

(F) determine ethical practices within the textile and apparel industries; and

(G) describe factors that contribute to a safe working environment.

(2) The textile and apparel industries. The student evaluates textile and apparel product marketing techniques. The student is expected to:

(A) determine viable markets for textile and apparel products;

(B) describe textile and apparel product marketing strategies and how they affect the consumer;

(C) determine the impact of technology on marketing textile and apparel products; and

(D) describe cultural and societal influences on the promotion of textile and apparel products.

(3) Textile design and production. The student applies knowledge of fibers, fabrics, and design when evaluating textile products. The student is expected to:

(A) classify properties of fabrics;

(B) assess the elements and principles of design utilized in textile products;

(C) analyze characteristics of natural and manufactured fibers;

(D) describe methods of textile fabrication; and

(E) assess the effects of various environmental conditions on textiles.

(4) Textile design and production. The student evaluates manufacturing processes utilized in textile production. The student is expected to:

(A) compare processes for dyeing, printing, and finishing used in the textile industry;

(B) explain how finishes affect the characteristics of fabrics;

(C) determine textile suitability for specific applications and uses; and

(D) recommend care procedures for various textile products.

(5) Textile design and production. The student analyzes influences on textile design and production. The student is expected to:

(A) summarize the history of textile design and production;

(B) analyze the impact of technology on fiber production and textile design and manufacturing;

(C) summarize legislation affecting the import, export, and safe production of textile products;

(D) analyze international factors affecting the textile industry;

(E) explain demographic, societal, and cultural influences on the textile industry;

(F) determine the impact of design decisions on the cost of textile products; and

(G) determine the many applications of textile products beyond those related to the consumer apparel industry.

(6) Apparel design practices and influences. The student creates apparel products utilizing principles of effective design. The student is expected to:

(A) apply design elements and principles in creating apparel products;

(B) use design elements and principles to design products for individuals with special needs;

(C) determine factors impacting the selection of textiles for apparel creation;

(D) utilize draping and flat pattern methods for fitting a garment; and

(E) determine technology applications useful in the apparel design process.

(7) Apparel design practices and influences. The student determines design influences on the apparel industry. The student is expected to:

(A) summarize the history of apparel design;

(B) identify federal regulations affecting the apparel industry;

(C) explain the role of leading designers in determining fashion trends;

(D) analyze international factors affecting the apparel industry;

(E) analyze demographic, societal, and cultural factors affecting the apparel industry;

(F) determine the impact of technology on the apparel industry; and

(G) determine the impact of design decisions on the cost of apparel products.

(8) Career preparation. The student makes informed career decisions that reflect personal, family, and career goals. The student is expected to:

(A) describe management practices facilitating individuals assuming multiple family, community, and wage-earner roles;

(B) determine employment and entrepreneurial opportunities and preparation requirements in the textile and apparel industries;

(C) demonstrate skills, characteristics, and responsibilities of leaders and effective team members;

(D) demonstrate effective verbal, nonverbal, written, and electronic communication skills;

(E) demonstrate effective techniques to secure, maintain, and terminate employment;

(F) practice positive human-relations skills; and

(G) evaluate the effect of careers in the textile and apparel industries on family life.

(9) Career preparation. The student completes a supervised career-connections experience applying knowledge and skills developed in the study of textiles and apparel. The student is expected to:

(A) determine home and business applications of knowledge and skills developed in the study of textiles and apparel; and

(B) utilize a career-connections experience to demonstrate occupational applications of competencies developed in the study of textiles and apparel.

§122.74. *Textile and Apparel Production, Management, and Services (Two to Three Credits).*

(a) General requirements. This course provides occupationally specific training and is recommended for students in Grades 11-12. Students may be awarded two to three credits per year for one to two years for the successful completion of this course. Instruction may be delivered through school-based pre-employment laboratory training or through work-based delivery arrangements such as cooperative education, preceptorships, mentoring, and job shadowing. The two recommended prerequisites for this course are: Apparel, Textile and Apparel Design.

(b) Training specialization options. All students training in Textile and Apparel Production, Management, and Services shall develop knowledge and skills described in subsection (d)(1)-(3) and (11)-(14) of this section. In addition, students are expected to develop knowledge and skills described in one of the following three training specialization options.

(1) Textile and apparel production. Students whose training emphasizes textile and apparel production are expected to develop knowledge and skills described in subsection (d)(4)-(6) of this section.

(2) Textile and apparel management and services. Students whose training emphasizes textile and apparel management and services are expected to develop knowledge and skills described in subsection (d)(4) and (8)-(10) of this section.

(3) Textile and apparel services. Students whose training emphasizes textile and apparel services shall develop knowledge and skills described in subsection (d)(6) and (7) of this section.

(c) Introduction. The textile and apparel industries encompass the production, marketing, and consumption of textile and apparel products. Individuals use knowledge and skills to function effectively as consumers and in careers related to the textile and apparel industries.

(d) Knowledge and skills.

(1) Textile and apparel production. The student adheres to organizational goals, policies, and procedures. The student is expected to:

(A) contrast the organizational structure of selected businesses in the textile and apparel industries;

(B) describe how goals, policies, and procedures influence business structures;

(C) relate the impact of organizational goals, policies, and procedures to each individual's job performance;

(D) explain the importance of scheduling in managing employee work assignments; and

(E) analyze demographic, economic, and societal factors influencing organizational goals, policies, and procedures.

(2) Textile and apparel production. The student performs routine operations for various roles in the textile and apparel industries. The student is expected to:

(A) identify routine tasks that employees may perform;

(B) follow procedures identified for performing tasks;

(C) apply resource management procedures when completing assigned tasks; and

(D) utilize safe and effective work habits, procedures, and time schedules for completing prescribed tasks.

(3) Textile and apparel production. The student determines the implications of textile characteristics and fabrication on textile and apparel products. The student is expected to:

(A) identify origins, properties, and qualities of natural and manufactured fibers;

(B) describe methods of fiber and yarn production;

(C) analyze the impact of technology on production of fibers, yarns, and fabrics;

(D) outline the textile design process from concept to finished product;

(E) differentiate types and methods of textile fabrication;

(F) summarize implications and methods of dyeing, printing, and finishing of textiles;

(G) determine textile and apparel labeling requirements; and

(H) determine factors affecting the cost of textile products.

(4) Textile and apparel production. The student analyzes the apparel production process from design concept to finished product. The student is expected to:

(A) analyze elements and principles of design as related to apparel;

(B) outline general procedures and equipment used in apparel design and pattern development;

(C) analyze factors to consider when selecting fabrics for garment design and production; and

(D) describe the impact of production and quality control systems on the worker, product costs, and quality.

(5) Textile and apparel production. The student creates quality apparel products. The student is expected to:

(A) describe types, uses, and care of equipment, tools, and supplies used in apparel production;

(B) demonstrate safety practices when completing apparel production tasks;

(C) determine uses of technology in apparel design and production;

(D) differentiate procedures and techniques appropriate for varied production systems to achieve quality apparel products; and

(E) utilize established production procedures and processes to achieve quality standards in finished products.

(6) Textile and apparel customization and care. The student uses appropriate techniques to alter, repair, and customize textile and apparel products according to quality standards. The student is expected to:

(A) demonstrate correct procedures utilized in garment fitting and alteration;

(B) describe characteristics of proper fit in garments;

(C) determine alterations to solve common fitting problems resulting from individual differences and special needs;

(D) describe types, use, and care of tools, equipment, and supplies used to alter, repair, and customize textile and apparel products;

(E) apply elements and principles of design in altering, repairing, and customizing textile and apparel products;

(F) utilize appropriate techniques and processes to alter, repair, and customize textile and apparel products according to quality standards; and

(G) demonstrate safety practices when completing tasks related to the alteration, repair, and customization of textile and apparel products.

(7) Textile and apparel customization and care. The student applies procedures for the commercial care of textiles and apparel to meet industry standards. The student is expected to:

(A) define terms commonly used in commercial textile and apparel care;

(B) explain how regulations pertaining to workplace safety, labor, and environmental issues affect the commercial textile and apparel care operation;

(C) apply effective safety and sanitation practices in textile and apparel care procedures;

(D) identify equipment and supplies and their uses in textiles and apparel;

(E) demonstrate proper selection, use, and care of equipment and products for cleaning, laundry, and pressing tasks;

(F) perform commercial care procedures for textile and apparel products in accordance with content and care label information;

(G) determine procedures for efficiently marking and tracking items in a commercial textile and apparel care operation;

(H) complete commercial textile and apparel care tasks according to industry standards; and

(I) analyze the impact of technology and societal patterns on commercial textile and apparel care operations.

(8) Textile and apparel business promotions. The student illustrates coordination of clothing and accessories. The student is expected to:

(A) describe factors considered when coordinating clothing and accessories;

(B) demonstrate coordination of clothing and accessories for various occasions; and

(C) summarize social, cultural, societal, and generational influences that affect clothing and accessory trends and choices.

(9) Textile and apparel business promotions. The student applies marketing techniques when assisting with promotional activities. The student is expected to:

(A) describe various types of business promotion strategies;

(B) classify types of customers and their motives for buying textile and apparel products;

(C) describe roles of public relations and publicity in product promotion; and

(D) explain the use of promotional activities to market textile and apparel products and services.

(10) Textile and apparel business promotions. The student creates product displays using the principles of design. The student is expected to:

(A) identify components used in developing displays;

(B) determine ways in which design elements and principles are used in the creation of displays;

(C) describe types and uses of interior and exterior displays; and

(D) create window or other displays of textile and apparel products.

(11) Career preparation. The student exhibits employability skills that lead to job success in the textile and apparel industries. The student is expected to:

(A) demonstrate effective verbal, nonverbal, written, and electronic communication skills;

(B) demonstrate effective methods to secure, maintain, and terminate employment;

(C) demonstrate positive interpersonal skills including conflict resolution, negotiation, teamwork, and leadership;

(D) evaluate the relationship of good physical and mental health to job success and achievement;

(E) demonstrate appropriate grooming and appearance for the workplace;

(F) demonstrate appropriate business and personal etiquette in the workplace; and

(G) exhibit productive work habits and attitudes.

(12) Career preparation. The student determines employment opportunities and preparation requirements in the textile and apparel industries. The student is expected to:

(A) determine preparation requirements for various levels of employment in a variety of careers in the textile and apparel industries;

(B) analyze the future employment outlook in the textile and apparel industries;

(C) describe entrepreneurial opportunities in the textile and apparel industries;

(D) determine how interests, abilities, personal priorities, and family responsibilities affect career choice;

(E) compare rewards and demands for various levels of employment in a variety of careers;

(F) determine continuing education opportunities that enhance career advancement and promote lifelong learning;

(G) apply correct textile and apparel terminology;

(H) describe the size, scope, and importance of the textile and apparel industries; and

(I) describe the impact of international trade practice on the textile and apparel industries and on U.S. economics.

(13) Career preparation. The student demonstrates ethical and legal practices for careers in the textile and apparel industries. The student is expected to:

(A) summarize the rights and responsibilities of employers and employees;

(B) exhibit ethical practices as defined by the textile and apparel industries; and

(C) analyze legal aspects of the textile and apparel industries.

(14) Career preparation. The student analyzes the management of multiple family, community, and wage-earner roles. The student is expected to:

(A) analyze challenges of managing multiple family, community, and wage-earner roles; and

(B) exhibit management practices facilitating individuals assuming multiple roles.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Subchapter I. Environmental Design, High School

19 TAC §§122.81-122.84

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§122.81. Implementation of Texas Essential Knowledge and Skills for Home Economics Education, Environmental Design, High School.

The provisions of Chapter 122, Subchapters B-K shall supersede §75.83 of this title (relating to Vocational Home Economics) beginning September 1, 1998.

§122.82. Housing (One-Half Credit).

(a) General requirements. This technical laboratory course is recommended for students in Grades 10-12.

(b) Introduction. Environmental design addresses psychological, physiological, and sociological needs of individuals by enhancing the environments in which they live and work. Individuals use knowledge and skills related to interior and exterior environments, construction, and furnishings to make wise consumer decisions, increase productivity, and compete in industry.

(c) Knowledge and skills.

(1) Management of housing needs. The student demonstrates effective decision-making skills related to housing needs throughout the life cycle. The student is expected to:

(A) determine housing characteristics common to various cultures and regions;

(B) describe factors affecting housing choices;

(C) describe the relationship of housing and family economics;

(D) assess the impact of demographic trends and psychological, physiological, and social needs on housing decisions;

(E) analyze the impact of housing decisions on family relationships and the management of multiple family, community, and wage-earner roles;

(F) analyze aspects of community planning that impact housing decisions; and

(G) compare the availability, desirability, and financial feasibility of housing alternatives.

(2) Management of housing needs. The student demonstrates effective management practices related to the housing budget. The student is expected to:

(A) explain consumer rights and responsibilities associated with housing;

(B) contrast the impact of needs and wants on the costs of housing;

(C) analyze legal and financial aspects of purchasing and leasing housing; and

(D) summarize laws and public policies that impact housing decisions and costs.

(3) Management of housing needs. The student recommends practices that will create a safe, secure, and well-maintained home. The student is expected to:

(A) explain the effect of housing conditions on health and safety;

(B) develop a plan for detecting safety hazards and maintaining a safe home; and

(C) describe housing features for individuals with special needs.

(4) Housing and environment. The student proposes methods to create quality living environments. The student is expected to:

(A) apply elements and principles of design to living environments;

(B) apply principles of space utilization, zoning, and traffic patterns in planning and furnishing housing; and

(C) propose design and furnishings features to meet the special needs of individuals and families.

(5) Housing and environment. The student considers factors affecting housing construction when making planning and consumer decisions related to housing. The student is expected to:

(A) identify architectural styles exemplified in housing;

(B) summarize considerations for housing site selection;

(C) evaluate basic housing construction and finishing considerations; and

(D) describe the effects of technology on current and future housing trends.

(6) Housing and environment. The student evaluates factors influencing the housing industry. The student is expected to:

(A) describe the interrelationship of the housing industry and the U.S. economy; and

(B) determine sources and availability of construction materials.

(7) Housing and environment. The student assesses environmental issues affecting housing. The student is expected to:

(A) evaluate the effects of landscaping on housing and the larger environment; and

(B) determine techniques, materials, and technology applications that can be used in housing to conserve energy and other resources.

(8) Career preparation. The student exhibits employability skills. The student is expected to:

(A) demonstrate effective methods to secure, maintain, and terminate employment;

(B) demonstrate effective verbal, nonverbal, written, and electronic communication skills;

(C) demonstrate ethical behavior and positive interpersonal skills including conflict resolution, negotiation, teamwork, and leadership; and

(D) demonstrate skills, characteristics, and responsibilities of leaders and effective team members.

(9) Career preparation. The student makes informed career decisions that reflect personal, family, and career goals. The student is expected to:

(A) describe management practices facilitating individuals assuming multiple family, community, and wage-earner roles;

(B) determine employment and entrepreneurial opportunities and preparation requirements in the housing industry;

(C) analyze the implications of housing careers on personal and family life;

(D) propose short-term and long-term career goals;

(E) determine the use of technology in personal and career applications related to housing; and

(F) assess factors that contribute to a safe working environment.

(10) Career preparation. The student completes a supervised career-connections experience applying knowledge and skills developed in the study of housing. The student is expected to:

(A) determine home and business applications of knowledge and skills developed in the study of housing; and

(B) utilize a career-connections experience to demonstrate occupational applications of competencies developed in the study of housing.

§122.83. Interior Design (One-Half Credit).

(a) General requirements. This technical laboratory course is recommended for students in Grades 10-12. The recommended prerequisite for this course is Housing.

(b) Introduction. Environmental design addresses psychological, physiological, and sociological needs of individuals by enhancing the environments in which they live and work. Individuals use knowledge and skills related to interior and exterior environments, construction, and furnishings to make wise consumer decisions, increase productivity, and compete in industry.

(c) Knowledge and skills.

(1) Interior environments. The student utilizes effective design practices to evaluate residential and nonresidential interiors. The student is expected to:

(A) apply elements and principles of design to interiors;

(B) plan for effective use of space zones and placement of furnishings;

(C) determine drafting techniques, including scaled drawings, that facilitate space planning;

(D) determine the effect of technology on interior design practices;

(E) differentiate design practices to meet individual, business, and special needs;

(F) describe energy conservation practices that affect interior design; and

(G) summarize laws, public policies, and regulations impacting interior environments.

(2) Interior environments. The student determines appropriate lighting for residential and nonresidential interiors. The student is expected to:

(A) analyze the functions and principles of lighting;

(B) compare lighting types and methods of control; and

(C) recommend lighting applications for specific interior needs.

(3) Interior environments. The student chooses appropriate background materials to complement various residential and nonresidential interior settings. The student is expected to:

(A) compare criteria for selection, use, and care of floor coverings;

(B) evaluate selection, use, and care of wall treatments;

(C) explain selection and care of ceilings; and

(D) evaluate the selection, use, and care of window treatments and their suitability for various window types.

(4) Interior environments. The student demonstrates effective decision-making skills in applying principles of design and space to residential and nonresidential interior environments. The student is expected to:

(A) describe the relationship of interior decisions to individual and family needs and wants;

(B) describe the influences of demographics, society, and culture on interior design decisions;

(C) explain the relationship of economics to interior environments; and

(D) propose strategies for controlling costs, allocating resources, and budgeting for acquisition of products to enhance interior environments.

(5) Furniture, appliances, and accessories. The student evaluates the role of furniture in interior design for residential and nonresidential settings. The student is expected to:

(A) describe characteristics of period styles;

(B) determine the influence of period styles on interior design;

(C) summarize selection and care of quality furniture;

(D) assess aesthetic and functional aspects of furniture; and

(E) describe the impact of technology on furniture.

(6) Furniture, appliances, and accessories. The student determines the role of appliances in interior design for residential and nonresidential settings. The student is expected to:

appliances;

- (A) analyze the functional and aesthetic aspects of

- (B) determine the process for selection of appliances;
- (C) explain the safe use and care of appliances; and
- (D) describe the impact of technology on appliances.

(7) Furniture, appliances, and accessories. The student evaluates the role of accessories in interior design for residential and nonresidential settings. The student is expected to:

- (A) identify types of accessories;
- (B) describe criteria for selection of accessories;
- (C) analyze care of accessories; and
- (D) practice guidelines for arranging accessories.

(8) Career preparation. The student exhibits employability skills. The student is expected to:

- (A) demonstrate effective methods to secure, maintain, and terminate employment;
- (B) demonstrate effective verbal, nonverbal, written, and electronic communication skills;
- (C) demonstrate positive interpersonal skills, including conflict resolution, negotiation, teamwork, and leadership; and
- (D) demonstrate skills, characteristics, and responsibilities of leaders and effective team members.

(9) Career preparation. The student makes informed career decisions that reflect personal, family, and career goals. The student is expected to:

- (A) determine employment and entrepreneurial opportunities and preparation requirements in interior design;
- (B) propose short-term and long-term career goals;
- (C) evaluate the effect of interior design careers on family life;
- (D) describe management practices facilitating individuals assuming multiple family, community, and wage-earner roles;
- (E) assess factors affecting a safe working environment; and
- (F) describe personal and interior design career applications of technology.

(10) Career preparation. The student completes a supervised career-connections experience applying knowledge and skills developed in the study of interior design. The student is expected to:

- (A) determine home and business applications of knowledge and skills developed in the study of interior design; and
- (B) utilize a career-connections experience to demonstrate occupational applications of competencies developed in the study of interior design.

§122.84. Housing, Furnishings, and Equipment Production, Management, and Services (Two to Three Credits).

(a) General requirements. This course provides occupationally specific training and is recommended for students in Grades 11-12. Students may be awarded two to three credits per year for one

to two years for the successful completion of this course. Instruction may be delivered through school-based pre-employment laboratory training or through work-based delivery arrangements such as cooperative education, preceptorships, mentoring, and job shadowing. The two recommended prerequisites for this course are: Housing, Interior Design.

(b) Training specialization options. All students training in Housing, Furnishings, and Equipment Production, Management, and Services are expected to develop knowledge and skills described in subsection (d)(1), (5), (9), and (13)-(16) of this section. In addition, students are expected to develop knowledge and skills described in one of the following three training specialization options.

(1) Housing, furnishings, and equipment production. Students whose training emphasizes housing, furnishings, and equipment production are expected to develop knowledge and skills described in subsection (d)(2), (3), (6), and (7) of this section.

(2) Housing, furnishings, and equipment management and services. Students whose training emphasizes housing, furnishings, and equipment management and services are expected to develop knowledge and skills described in subsection (d)(2)-(4) and (8) of this section.

(3) Floral design. Students whose training emphasizes floral design are expected to develop knowledge and skills described in subsection (d)(8) and (10)-(12) of this section.

(c) Introduction. Environmental design addresses psychological, physiological, and sociological needs of individuals by enhancing the environments in which they live and work. Individuals use knowledge and skills related to interior and exterior environments, construction, and furnishings to make wise consumer decisions, increase productivity, and compete in industry.

(d) Knowledge and skills.

(1) Design, application, and selection. The student determines the use of elements and principles of design in residential and nonresidential environments and their furnishings. The student is expected to:

- (A) identify the elements of design;
- (B) exhibit how the elements of design can create various effects;
- (C) list the principles of design;
- (D) explain how the principles and elements of design differ;
- (E) apply guidelines for coordinating furnishings; and
- (F) analyze societal and cultural influences on the design of residential and nonresidential environments and their furnishings.

(2) Design, application, and selection. The student analyzes the workmanship, characteristics, use, and care of materials used in the design and construction of residential and nonresidential furnishings and equipment. The student is expected to:

(A) analyze characteristics of materials and workmanship in relationship to durability and use;

(B) identify characteristics of materials and workmanship in relationship to appearance, performance, use, and care of furnishings;

(C) explain labeling requirements and appropriate procedures for the care of various furnishings;

(D) interpret information provided in equipment use and care manuals; and

(E) demonstrate procedures for the care and maintenance of different types of furnishings and equipment.

(3) Design, application, and selection. The student determines treatments and accessories suitable for residential and nonresidential applications. The student is expected to:

(A) analyze products to determine the appropriate style of design;

(B) determine appropriate use of accessories, lighting, materials, and space in various environments;

(C) describe trends in materials, accessories, lighting, and space utilization;

(D) illustrate appropriate window treatments for specific windows;

(E) evaluate cost considerations in accessorizing for various settings;

(F) describe characteristics, use, and care of wall treatments; and

(G) identify characteristics of types of flooring in relationship to design and construction.

(4) Design, application, and selection. The student assesses factors influencing the selection of furniture and equipment for residential and nonresidential applications. The student is expected to:

(A) describe furniture and equipment used in residential and nonresidential applications;

(B) compare furniture and equipment needs of families in different stages of the life cycle;

(C) evaluate economic considerations when selecting furniture and equipment;

(D) arrange furniture and equipment to accommodate floor plans to meet needs and wants;

(E) describe considerations for selecting furniture and equipment to accommodate persons with special needs; and

(F) utilize sources of information on changing trends and technology related to furnishings and equipment.

(5) Workplace skills. The student applies safety and sanitation practices. The student is expected to:

(A) apply safety rules in performing various workplace procedures according to industry standards;

(B) identify potential hazards and prevention practices;

(C) summarize laws pertaining to safety and sanitation practices;

(D) demonstrate appropriate responses to emergency situations; and

(E) determine workplace procedures that protect the environment.

(6) Workplace skills. The student determines appropriate use and care of tools and equipment used in construction of furnishings. The student is expected to:

(A) identify tools and equipment used in construction of furnishings;

(B) demonstrate safe and skillful tool care and use; and

(C) describe the impact of technology on tools, equipment, and construction.

(7) Workplace skills. The student demonstrates skills in selected product design and construction. The student is expected to:

(A) appraise characteristics of good workmanship in furnishings products;

(B) utilize knowledge of design application, selection, and construction to complete furnishings projects; and

(C) analyze uses of technology in furnishings, design, and construction.

(8) Housing, furnishings, and equipment marketing. The student identifies types of business promotion practices and their benefit to the housing and furnishings retailer. The student is expected to:

(A) discuss business promotion objectives in the retail housing and furnishings industry;

(B) analyze techniques using sales promotion, advertising, and displays;

(C) describe the use of technology and other forms of advertising media in housing and furnishings business promotions;

(D) explain how business promotion reflects the environment in which a person lives; and

(E) predict how societal trends and changing demographics influence housing and furnishings business promotions.

(9) Housing, furnishings, and equipment marketing. The student evaluates customer relations as a tool for successful business operations. The student is expected to:

(A) analyze the importance of good customer relations in building and maintaining a business;

(B) demonstrate techniques for maintaining good client relationships; and

(C) describe conflict resolution techniques when dealing with customer complaints.

(10) Floral products and services. The student demonstrates appropriate practices in the selection, use, and care of floral products. The student is expected to:

(A) demonstrate the elements and principles of floral design;

(B) identify basic equipment and supplies used in floral design;

(C) demonstrate proper selection, use, and care of equipment, tools, supplies, and materials for prescribed tasks; and

(D) apply storage and care procedures for floral materials, supplies, cut flowers, and live plants.

(11) Floral products and services. The student applies appropriate trends and technology affecting floral design. The student is expected to:

(A) explain advances in cultivation techniques;

(B) analyze preservation techniques for plants and cut flowers;

(C) describe the benefits of telecommunications in the floral industry;

(D) identify trends in floriculture; and

(E) demonstrate the use of artificial flowers and foliage in the industry.

(12) Floral products and services. The student determines entrepreneurial opportunities in the floral industry. The student is expected to:

(A) describe various opportunities and occupations in the floral industry;

(B) assess ownership and management structures and responsibilities; and

(C) explain the impact of the economy on the floral industry.

(13) Career preparation. The student exhibits employability skills that lead to job success in the housing, furnishings, and equipment industries. The student is expected to:

(A) demonstrate effective verbal, nonverbal, written, and electronic communication skills;

(B) demonstrate effective methods to secure, maintain, and terminate employment;

(C) demonstrate positive interpersonal skills including conflict resolution, negotiation, teamwork, and leadership;

(D) evaluate the relationship of good physical and mental health to job success and achievement;

(E) demonstrate appropriate grooming and appearance for the workplace;

(F) demonstrate appropriate business and personal etiquette in the workplace; and

(G) exhibit productive work habits and attitudes.

(14) Career preparation. The student determines employment opportunities and preparation requirements for careers in the housing, furnishings, and equipment industries. The student is expected to:

(A) determine preparation requirements for various levels of employment in a variety of careers in the housing, furnishings, and equipment industries;

(B) analyze the future employment outlook in the housing, furnishings, and equipment industries;

(C) describe entrepreneurial opportunities in the housing, furnishings, and equipment industries;

(D) determine how interests, abilities, personal priorities, and family responsibilities affect career choice;

(E) compare rewards and demands for various levels of employment in a variety of careers; and

(F) determine continuing education opportunities that enhance career advancement and promote lifelong learning.

(15) Career preparation. The student demonstrates ethical and legal practices for careers in the housing, furnishings, and equipment industries. The student is expected to:

(A) summarize the rights and responsibilities of employers and employees;

(B) exhibit ethical practices as defined by the housing, furnishings, and equipment industries; and

(C) analyze legal aspects of the housing, furnishings, and equipment industries.

(16) Career preparation. The student analyzes the management of multiple family, community, and wage-earner roles. The student is expected to:

(A) analyze challenges of managing multiple family, community, and wage-earner roles; and

(B) exhibit management practices facilitating individuals assuming multiple roles.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Subchapter J. Research, High School

19 TAC §122.91, §122.92

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§122.91. Implementation of Texas Essential Knowledge and Skills for Home Economics Education, Research, High School.

The provisions of Chapter 122, Subchapters B-K, shall supersede §75.83 of this title (relating to Vocational Home Economics) beginning September 1, 1998.

§122.92. Independent Study in Home Economics Education (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grade 12. The prerequisite for this course is completion of at least three courses in a home economics coherent sequence.

(b) Introduction. Home economics education provides individuals and families with essential knowledge and skills for managing the challenges of living and working in a diverse, global society. Individuals utilize these skills to enhance career and personal effectiveness, promote family strength and well-being, and pursue career options.

(c) Knowledge and skills.

(1) Research design and development. The student applies multidisciplinary skills to plan and conduct research in home economics. The student is expected to:

(A) select an independent study project consisting of a school-based learning activity that provides an in-depth study related to the home economics career concentration;

(B) collaborate with an interdisciplinary team to develop specifications for the selected independent study project;

(C) conduct the independent study project under the supervision of the teacher and a related industry mentor;

(D) apply the scientific method of investigation;

(E) utilize effective resource management to access, collect, and process data relevant to the independent study project;

(F) apply statistical concepts to analyze data, evaluate results, and draw conclusions; and

(G) compile findings in a coherent and organized manner.

(2) Research design and development. The student demonstrates effective communication and interpersonal skills in conducting and reporting the independent study project. The student is expected to:

(A) utilize communication and interpersonal skills to accomplish project goals;

(B) demonstrate professional conduct in completing all aspects of the independent study project; and

(C) utilize a variety of resources, technology, and reporting formats (such as written, visual, graphical, and oral presentation) to communicate the independent study project to a review panel to include professionals in the field of project focus.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Subchapter K. Other Provisions, High School

19 TAC §§122.101-122.103

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§122.101. Implementation of Texas Essential Knowledge and Skills for Home Economics Education, Other Provisions, High School.

The provisions of Chapter 122, Subchapters B-K, shall supersede §75.83 of this title (relating to Vocational Home Economics) beginning September 1, 1998.

§122.102. Home Economics Summer Program (One-Half Credit).

(a) General requirements. This special projects course is recommended for students in Grades 9-12. Students may be awarded one-half credit for the successful completion of this course each of one or two summers. The prerequisite for this course is completion of two semesters of home economics education.

(b) Content requirements. Schools may provide a locally developed Home Economics Summer Program to meet the educational needs and interests of students. The Home Economics Summer Program should include organized group instruction that may be provided in a variety of arrangements and settings and should accommodate varied student needs and interests. Content for the Home Economics Summer Program should be based upon knowledge and skills appropriately selected from those approved for courses in this chapter. Each student is expected to complete a supervised career-connections experience.

§122.103. Home Economics Production, Management, and Services (Two to Three Credits).

(a) General requirements. This course provides occupationally specific training and is recommended for students in Grades 11-12. Students may be awarded two to three credits per year for one to two years for the successful completion of this course. Instruction may be delivered through school-based pre-employment laboratory training or through work-based delivery arrangements such as cooperative education, preceptorships, mentoring, and job shadowing.

(b) Content requirements. Schools may provide a locally developed program to provide training which develops knowledge and skills in a broad range of home economics occupational specialization areas. Content for home economics production, management, and services should be designed to meet the occupational preparation needs and interests of students and should be based upon the knowledge and skills selected from two or more occupationally specific training courses in this chapter.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Chapter 123. Texas Essential Knowledge and Skills for Technology Education/Industrial Technology Education

The Texas Education Agency (TEA) adopts new §§123.1, 123.2, 123.11-123.16, 123.31-123.33, 123.41- 123.47, 123.61-123.68, 123.81-123.83, and 123.91-123.93, concerning technology education/industrial technology education, with changes to the proposed text as published in the February 28, 1997, issue of the *Texas Register* (22 TexReg 2186). The new sections establish the essential knowledge and skills for technology courses surrounding the following six areas: (1) bio-related technology; (2) communication; (3) construction; (4) energy and power; (5) manufacturing; and (6) transportation. The new sections are necessary to ensure that students throughout the state have access to the enrichment curricula. The provisions of these sections shall supersede §75.50(b), (c), (f), and (g), of this title (relating to Introductory Industrial Technology) and §75.85 of this title (relating to Industrial Technology Education) beginning September 1, 1998.

The Texas Education Code organizes the required curriculum into two types: the foundation curriculum and the enrichment curriculum. As specified in legislation, the essential knowledge and skills of the enrichment curriculum serve as guidelines to school districts in providing instruction. In doing so, some districts may incur costs for professional development and equipment. These potential costs cannot be estimated.

Members of the public expressed concern about adoption of a certificate of initial mastery. Neither the Texas essential knowledge and skills (TEKS) nor any other rule contains reference to, promotes, or establishes a certificate of initial mastery.

The following changes have been made since the sections were proposed.

Numerous editorial changes were made throughout the sections for clarification and simplification. Changes were also made to strengthen verbs and to eliminate references to particular instructional approaches.

Since filing of the proposed sections, legal counsel has advised that since the sections serve as guidelines for instruction, language containing or implying mandates on school districts should be stricken or replaced with more permissive language where necessary. The term "shall" that appeared in statements regarding the date of implementation of the provisions for each subchapter was replaced with more permissive language. Language specifying the amount of credit to be awarded for successful completion of a course was deleted.

The term "capstone" in career and technology education courses has been replaced with the term "independent study" to clarify language. The career and technology education courses consist of an in-depth study of a business/industry that is of particular interest to a student.

Several individuals who testified at the public hearing held on March 4, 1997, stated that the TEKS for career and technology education contain references to the skills and competencies identified by the Secretary's Commission on Achieving Necessary Skills (SCANS) and thus reflect federal influence. TEA staff has carefully reviewed the TEKS for evidence of SCANS skills and competencies. The sections being adopted do not contain specific references to SCANS; however, the sections do contain skills and competencies that are among those recommended by the commission. The curriculum writing teams, members of the State Board of Education Review Committee, and others who had suggested strengthening the TEKS drafts expressed a strong belief that some skills and competencies identified by the SCANS commission are an essential part of an effective curriculum.

Throughout 19 TAC Chapter 123, language that referred to "personal, social, cultural" and other effects of technology has been changed so that students describe the "intended and unintended" effects of technology. In addition, language in some student expectation statements has been changed to reflect measurable criteria. Those that cannot be measured objectively have been deleted.

In subsection (c)(18)(E) of §§123.2, 123.12-123.16, 123.32, 123.33, and 123.42-123.47, language has been changed to read "identify employers' expectations and appropriate work habits;" to clarify the meaning of the student expectation statement. This change also has been made in subsection (c)(13)(E) of §§123.62-123.66; subsection (c)(15)(E) of §123.67; and subsection (c)(14)(E) of §123.68.

The following changes were made to reflect clearly the meaning of the knowledge and skills statements.

In subsection (c)(6)(B) of §123.12 (relating to Exploring Communication Technology), the phrase "use the standard units of measure" has been deleted and moved to §123.12(c)(15)(D).

In subsection (c)(11)(D) of §123.14 (relating to Exploring Construction Technology), the phrase "describe issues related to regional and community planning" has been deleted and moved to §123.14(c)(12)(E).

In subsection (c)(6)(B) of §123.16 (relating to Exploring Manufacturing Technology), the phrase "use the appropriate units of measure" has been deleted and moved to §123.16(c)(15)(D).

The phrase "use the appropriate units of measure" has been deleted in subsection (c)(6)(B) of §123.43 (relating to Manufacturing Systems (One-Half to One Credit)). This student expectation statement was already addressed and included in Chapter 123, Subchapter B.

In subsection (c)(3)(B) of §123.62 (relating to Architectural Graphics (One-Half to One Credit)), the word "communications" has been changed to "technology" to clarify the meaning of the student expectation statement.

The term "real world" has been replaced with "practical" throughout the knowledge and skills statements in Chapter 123. In subsection (b)(3) of §123.82 (relating to Principles of Technology I (One Science Credit)) and §123.83 (relating to Principles of Technology II (One Science Credit)), the term

"real world" has been replaced with "physical world." These changes were made to clarify language.

The following comments have been received regarding adoption of the new sections. The comments are organized by subchapter and section.

Subchapter A. Overview, Middle School.

§123.2. Technology Education.

Issue: safety.

Comment. An individual commented with concerns regarding the knowledge and skills in subsection (c)(6)(C) and (D). The individual did not want his daughter to use dangerous tools, machines, and equipment.

Agency Response. The enrichment curriculum serves as guidelines for school districts. School districts will select age-appropriate tools.

Issue: inappropriate knowledge and skill.

Comment. An individual commented with concerns regarding the knowledge and skill in subsection (c)(7)(D). The individual did not want his daughter handling and disposing hazardous materials and wastes.

Agency Response. In a technology education course in middle school, a student may handle hazardous materials and wastes such as printer toner cartridges, correction fluid, paint, solvents, adhesives, photography developer and fixer, thinner, lacquer, motor oil, and saw dust. All of these are considered hazardous materials and wastes and must be disposed of in the proper manner. The issue is educating the student to dispose of these common substances appropriately, not haphazardly.

Subchapter B. Exploratory, Middle School.

§123.12. Exploring Communication Technology.

Issue: placement of statement of student expectation.

Comment. An individual commented that §123.12(c)(6)(B), filed as proposed, should be deleted and moved to §123.12(c)(15)(D).

Agency Response. The change has been made to more appropriately reflect the meaning of the knowledge and skill statement.

§123.14. Exploring Construction Technology.

Issue: placement of statement of student expectation.

Comment. An individual commented that §123.14(c)(11)(D), filed as proposed, should be deleted and moved to §123.14(c)(12)(E).

Agency Response. The change has been made to more appropriately reflect the meaning of the knowledge and skill statement.

§123.16. Exploring Manufacturing Technology.

Issue: placement of statement of student expectation.

Comment. An individual commented that the statement §123.16(c)(6)(B), filed as proposed, should be deleted and moved to §123.16(c)(15)(D).

Agency Response. The change has been made to more appropriately reflect the meaning of the knowledge and skill.

Subchapter C. Overview, High School.

§123.32. Technology Systems (One Credit).

Issue: terminology.

Comment. An individual commented that the term "energy/power" should be changed to "energy, power" in the Technology Systems course. This change should be made throughout §123.32(c).

Agency Response: The technical correction has been made throughout §123.32(c).

§123.33. Engineering Principles (One Credit).

Issue: role of communication skills in engineering.

Comment. An individual commented that language in subsection (c)(15) that allows students to make presentations and sell their recommendations should have been emphasized. Most engineers are lacking in both verbal and written communication skills.

Agency Response: As part of the enrichment curriculum, content adoption for technology education/industrial technology education will serve only as guidelines for local district use. The district has the opportunity to add emphasis to the communications area.

Issue: mathematics skills.

Comment. An individual commented that subsection (c)(15)(B) emphasizes that students need to use their mathematics skills in engineering. This language should be strengthened to include mathematical principles learned in algebra, geometry, and calculus.

Agency Response: As part of the enrichment curriculum, content adoption for technology education/industrial technology education will serve only as guidelines for local district use. The district has the opportunity to add emphasis to the mathematics skills used in the course.

Subchapter D. Exploratory, High School.

§123.43. Manufacturing Systems (One-Half to One Credit).

Issue: placement of statement of student expectation.

Comment. An individual commented that §123.43(c)(6)(B), filed as proposed, should be eliminated because it does not logically fit.

Agency Response. The change has been made to more appropriately reflect the meaning of the knowledge and skill.

Issue: manufacturing courses in the technology education curriculum.

Comment. An individual thanked the writing team for strengthening the manufacturing-related courses in the curriculum.

§123.45. Energy, Power, and Transportation Systems (One-Half to One Credit).

Issue: course addition.

Comment. An individual suggested that an additional course be added in the petro-chemical industry. Since this is the predominate industry in Texas, especially in the Houston area, an early introduction to the technical skills required will encourage young people to prepare themselves for jobs in this highly technical and challenging industry.

Agency Response. As part of the enrichment curriculum, content adoption for technology education/industrial technology education will serve only as guidelines for local district use. The district has the opportunity to add emphasis to the petrochemical industry to meet the needs of the local community.

Subchapter E. Technical, High School.

§123.62. Architectural Graphics (One-Half to One Credit).

Issue: clarity of statement.

Comment. An individual commented that the word "communications" in §123.62(c)(3)(B) should be replaced with the word "technology." The original version is inaccurate in its use of the terminology used in the architectural communications industry.

Agency Response. The change has been made to more appropriately reflect the meaning of the knowledge and skill.

§123.65. Manufacturing Technology (One-Half to One Credit).

Issue: manufacturing courses in the technology education curriculum.

Comment. An individual thanked the writing team for strengthening the manufacturing-related courses in the curriculum.

Subchapter F. Scientific, High School

§123.82. Principles of Technology I (One Science Credit).

Issue: science credit for Principles of Technology I.

Comment. An individual commented in support of awarding science credit for the technology education course, Principles of Technology I.

Comment. The Center for Occupational Research and Development (CORD) commented in support of awarding science credit for the technology education course, Principles of Technology I.

§123.83. Principles of Technology II (One Science Credit).

Issue: science credit.

Comment. An individual commented in support of awarding science credit for the technology education course, Principles of Technology II.

Comment. The Center for Occupational Research and Development (CORD) commented in support of awarding science credit for the technology education course, Principles of Technology II.

Subchapter G. Research, High School.

§123.92. Research, Design, and Development - Independent Study (One-Half to One Credit).

Issue: placement of statement of student expectation.

Comment. An individual commented that subsection (c)(3)(D) be eliminated so that students do not have to build a project portfolio.

Agency Response. An integral part of this course is to build a portfolio of the design work on a project to show project progression from beginning to end. Elimination of this knowledge and skill would seriously affect the impact of the "research, design, and development" aspect of this course. No change is recommended.

§123.93. Problems and Solutions in Technology - Independent Study (One-Half to One Credit).

Issue: manufacturing courses in the technology education curriculum.

Comment. An individual thanked the writing team for strengthening the manufacturing-related courses in the curriculum.

General Comments.

Comment. An individual commented that the statement "disposes of hazardous materials and wastes appropriately" should be reworded because this is not a measurable skill. This statement should be changed to read "describe how to dispose of hazardous materials and wastes appropriately."

Agency Response. This statement can be clarified in the curriculum guide as to the expectation of the teacher and student. No change is recommended.

Comment. An individual commented in support of the TEKS for technology education/industrial technology education. The curriculum does an outstanding job of identifying essential knowledge and skills that will prepare students to enter the work world and become "life long learners." An overhauling of the career and technology education curriculum is long over due.

Comment. An individual commented in support of the entire TEKS. Revision of all the career and technology education curriculum is necessary and long overdue. The individual specifically supported Chapter 123, TEKS for technology education/industrial technology education. This content area will provide students with a technical background necessary for them to compete in the future. These TEKS also provide for curriculum integration into the foundation areas of English language arts, social studies, mathematics, and science. The individual supported the emphasis placed on the core academics which will expand students' options and choices.

Issue: expectations regarding the subject area.

Comment. An individual commented that the TEKS for technology education/industrial technology education covers the broad base of the industrial technologies and will enlighten the students as to the prerequisite skills needed in high school to prepare for lifelong careers. In particular, the authors understood the need for reliability, quality, and safety in products and services and that these critical areas were covered.

Comment. An individual commented that the TEKS for technology education/industrial technology education do not meet the expectations of what all students should know and be able to do in the subject areas.

Agency Response. As guidelines, the TEKS for technology education/industrial technology education serve as the basis for local school districts to enhance to meet the needs in their local community.

Issue: number of courses.

Comment. An individual questioned the purpose of the courses.

Agency Response. An earlier draft was reviewed. Five courses were deleted.

Subchapter A. Overview, Middle School

19 TAC §123.1, §123.2

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§123.1. Implementation of Texas Essential Knowledge and Skills for Technology Education/Industrial Technology Education, Overview, Middle School.

The provisions of Chapter 123, Subchapters A and B, shall supersede §75.50(b), (c), (f), and (g) of this title (relating to Introductory Industrial Technology) beginning September 1, 1998.

§123.2. Technology Education.

(a) General requirements. This course is recommended for students in Grades 6-8.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student uses a systems model to describe manufacturing, construction, communication, energy, power, transportation, and bio-related technology activities. The student is expected to:

(A) identify the inputs, processes, output, and feedback associated with each of the technological systems;

(B) characterize technological activities as applying technology, designing technology, producing technology, and assessing technology; and

(C) describe how technological systems interact to achieve common goals.

(2) The student describes and uses manufacturing, construction, communication, energy, power, transportation, and bio-related technology to meet specific goals. The student is expected to:

(A) apply manufacturing, construction, communication, energy, power, transportation, and bio-related technology to practical problems;

(B) describe the factors that affect the purchase and use of products and services; and

(C) identify the roles of manufacturing, construction, communication, energy, power, transportation, and bio-related technology in business and industry.

(3) The student uses appropriate design processes and techniques in manufacturing, construction, communication, energy, power, transportation, and bio-related technology. The student is expected to:

(A) improve a product or system that meets a specified need; and

(B) identify areas where quality, reliability, and safety can be designed into a product, service, or system.

(4) The student describes emerging and innovative manufacturing, construction, communication, energy, power, transportation, and bio-related technologies. The student is expected to:

(A) prepare reports on emerging and innovative technologies; and

(B) create a display that presents information on emerging and innovative technologies.

(5) The student describes the importance of quality and how it is measured in manufacturing, construction, communication, energy, power, transportation, and bio-related technology. The student is expected to:

(A) identify different quality control applications in each of the technology systems; and

(B) describe the importance of continuous quality improvement.

(6) The student uses the appropriate tools, equipment, machines, materials and technical processes to complete a project. The student is expected to:

(A) identify the chemical, mechanical, and physical properties and standard units of measure of manufacturing, construction, communication, energy, power, transportation, and bio-related technology materials;

(B) identify the processes used in manufacturing, construction, communication, energy, power, transportation, and bio-related technology;

(C) use a variety of tools, equipment, machines, materials, and technical processes; and

(D) produce an item using the appropriate tools, equipment, machines, materials and technical processes.

(7) The student works safely with tools, equipment, machines, and materials used in manufacturing, construction, communication, energy, power, transportation, and bio-related technology. The student is expected to:

(A) master relevant safety tests;

- (B) follow safety manuals, instructions, and requirements;
- (C) describe hazardous materials and wastes; and
- (D) dispose of hazardous materials and wastes appropriately.

(8) The student describes the importance of maintenance in manufacturing, construction, communication, energy, power, transportation, and bio-related technology. The student is expected to:

- (A) handle and store tools and materials correctly; and
- (B) describe the results of negligent or improper maintenance.

(9) The student develops a plan for completing a technology project. The student is expected to:

- (A) participate in the organization and operation of a real or simulated manufacturing, construction, communication, energy, power, transportation, and bio-related technology project; and
- (B) identify and follow the steps needed to complete a project.

(10) The student describes the importance of codes, laws, standards, or regulations related to manufacturing, construction, communication, energy, power, transportation, and bio-related technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:

- (A) describe the importance of codes, laws, standards, or regulations;
- (B) identify areas where codes, laws, standards, or regulations may be required; and
- (C) follow the appropriate codes, laws, standards, or regulations.

(11) The student describes the intended and unintended effects of technological solutions. The student is expected to:

- (A) use an assessment strategy to determine the risks and benefits of technological activities;
- (B) describe how technology has affected individuals, societies, cultures, economies, and environments;
- (C) describe change and the factors that affect the adoption or rejection of technology; and
- (D) describe how and why technology evolves.

(12) The student identifies the factors that influence the evolution of manufacturing, construction, communication, energy, power, transportation, and bio-related technology. The student is expected to:

- (A) describe how changes in technology affect business and industry;
- (B) describe how the development and use of technology is influenced by past events; and
- (C) discuss the international effects of technology.

(13) The student solves technological problems, thinks critically, and makes decisions. The student is expected to:

- (A) improve a product by following a problem-solving strategy;
- (B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and
- (C) apply decision-making techniques to the selection of technological solutions.

(14) The student identifies the factors that determine the cost of an item in manufacturing, construction, communication, energy, power, transportation, or bio-related technology. The student is expected to:

- (A) work on a budget for a product or project;
- (B) determine the most effective strategies to minimize costs;
- (C) identify the financial factors associated with starting and operating enterprises; and
- (D) identify the role of business in a free enterprise system.

(15) The student applies his/her communication, mathematics, and science knowledge and skills to manufacturing, construction, communication, energy, power, transportation, and bio-related technology activities. The student is expected to:

- (A) use written, verbal, and visual communication techniques consistent with industry standards;
- (B) use mathematics concepts in technology; and
- (C) identify and apply science principles used in technology.

(16) The student describes basic product marketing processes and techniques. The student is expected to:

- (A) prepare a marketing plan for a(n) idea, product, or service; and
- (B) discuss the effect of customer satisfaction on the image of a product or company.

(17) The student selects and reports on career opportunities and requirements in manufacturing, construction, communication, energy, power, transportation, or bio-related technology. The student is expected to:

- (A) identify an area of interest and investigate its entry level and advancement requirements; and
- (B) describe the careers available in technology.

(18) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

- (A) describe how teams function;
- (B) use teamwork to solve problems;
- (C) distinguish between the roles of team leaders and team members;
- (D) identify characteristics of good leaders;

- (E) identify employers' expectations and appropriate work habits;
- (F) define discrimination, harassment, and equality;
- (G) use time management techniques to develop and maintain work schedules and meet deadlines; and
- (H) complete his/her work according to established criteria.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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Subchapter B. Exploratory, Middle School

19 TAC §§123.11–123.16

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§123.11. Implementation of Texas Essential Knowledge and Skills for Technology Education/Industrial Technology Education, Exploratory, Middle School.

The provisions of Chapter 123, Subchapters A and B, shall supersede §75.50(b), (c), (f), and (g) of this title (relating to Introductory Industrial Technology) beginning September 1, 1998.

§123.12. Exploring Communication Technology.

(a) General requirements. This course is recommended for students in Grades 7-8. The prerequisite for this course is Technology Education.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student describes how a systems model can be used to describe communication activities. The student is expected to:

(A) identify the inputs, processes, output, and feedback associated with communication activities;

(B) distinguish between photographic, digital graphic, printed graphic, technical graphic, audio, and video communication systems; and

(C) describe how technological systems interact to achieve common goals.

(2) The student uses communication technology to meet practical objectives. The student is expected to:

(A) apply communication technology to individual or community problems;

(B) describe the factors that affect the use and interpretation of communication products; and

(C) identify and describe the roles of communication in business and industry, such as informing, persuading, and educating.

(3) The student designs communication products using appropriate communication design processes and techniques. The student is expected to:

(A) develop or improve communication products that meet specified needs; and

(B) identify areas where quality can be designed into communication products, services, or systems.

(4) The student investigates emerging and innovative communication technologies. The student is expected to:

(A) report on emerging and innovative communication technologies; and

(B) create a display that presents information on emerging and innovative technologies.

(5) The student describes quality and how it is measured in communication. The student is expected to:

(A) describe different quality control applications in communication; and

(B) apply continuous quality improvement techniques to the production of communication items.

(6) The student produces communication items using the appropriate tools, equipment, machines, materials and technical processes. The student is expected to:

(A) identify the chemical and physical properties of communication materials;

(B) identify the processes used in photographic, digital graphic, printed graphic, technical graphic, audio, and video communication systems;

(C) use a variety of tools, equipment, and machines; and

(D) produce communication items.

(7) The student works safely with tools, equipment, machines, and materials used in communication technology. The student is expected to:

(A) master relevant safety tests;

- (B) follow safety manuals, instructions, and requirements;
- (C) describe hazardous materials and wastes; and
- (D) dispose of hazardous materials and wastes appropriately.

(8) The student describes the importance of maintenance in communication. The student is expected to:

- (A) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and
- (B) describe the results of improper maintenance.

(9) The student manages a communication technology project. The student is expected to:

- (A) develop a plan for completing a communication technology project; and
- (B) participate in the organization and operation of a real or simulated communication project.

(10) The student applies the appropriate codes, laws, standards, or regulations related to communication technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:

- (A) describe the importance of codes, laws, standards, or regulations;
- (B) identify areas where codes, laws, standards, or regulations may be required; and
- (C) follow the appropriate codes, laws, standards, or regulations.

(11) The student describes the intended and unintended effects of technological solutions. The student is expected to:

- (A) use an assessment strategy to determine the risks and benefits of technological developments in communication;
- (B) describe how technology has affected individuals, societies, cultures, economies, and environments; and
- (C) discuss the international effects of communication technology.

(12) The student identifies the factors that influence the evolution of communication technology. The student is expected to:

- (A) describe how changes in communication technology affect business and industry;
- (B) describe how the development and use of communication technology is influenced by past events;
- (C) describe change and the factors that affect the adoption or rejection of communication technology; and
- (D) describe how and why technology evolves.

(13) The student solves problems, thinks critically, and makes decisions related to communication technology. The student is expected to:

(A) improve a product by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technological solutions.

(14) The student describes the economic factors related to communication technology. The student is expected to:

- (A) develop a budget for a communication product or project;
- (B) determine the most effective strategies to minimize costs;
- (C) identify the financial factors associated with starting and operating communication enterprises; and
- (D) explain the role of business in a free enterprise system.

(15) The student applies communication, mathematics, and science knowledge and skills to communication activities. The student is expected to:

- (A) use audio and visual communication techniques consistent with industry standards;
- (B) use mathematics concepts in communication technology;
- (C) identify and apply science principles used in communication technology; and
- (D) use the standard units of measure.

(16) The student describes basic product marketing processes and techniques. The student is expected to:

- (A) prepare a marketing plan for a(n) idea, product, or service; and
- (B) discuss the effect of customer satisfaction on the image of a product or company.

(17) The student investigates career opportunities, requirements, and expectations in communication technology. The student is expected to:

- (A) identify an area of interest in communication and investigate its entry level and advancement requirements; and
- (B) describe the careers available in communications.

(18) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

- (A) describe how teams function;
- (B) use teamwork to solve problems;
- (C) distinguish between the roles of team leaders and team members;
- (D) identify characteristics of good leaders;
- (E) identify employers' expectations and appropriate work habits;

- (F) define discrimination, harassment, and equality;
- (G) use time management techniques to develop and maintain work schedules and meet deadlines; and
- (H) complete his/her work according to established criteria.

§123.13. *Exploring Computer Applications.*

(a) General requirements. This course is recommended for students in Grades 7-8. The prerequisite for this course is Technology Education.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student describes how a systems model can be used to describe computer hardware and software. The student is expected to:

- (A) apply the universal systems model to computer activities;
- (B) identify the inputs, processes, outputs, and feedback associated with computer applications;
- (C) distinguish between mainframe, workstation, personal, and other computer systems; and
- (D) describe how technological systems interact to achieve common goals.

(2) The student applies computer technology to specific tasks. The student is expected to:

- (A) apply computer technology to individual and community problems;
- (B) identify and describe the roles of computer technology; and
- (C) use computer technology to record, locate, analyze, present, and exchange information.

(3) The student designs a product using a computer system and appropriate design processes and techniques. The student is expected to:

- (A) develop or improve a product or computer system that meets a specified need;
- (B) use desktop publishing software to create a newsletter;
- (C) use graphic software to create and modify images;

(D) use simulation software for research and development; and

(E) use machining software to machine or simulate the machining of a part.

(4) The student investigates emerging and innovative computer technologies. The student is expected to:

- (A) report on emerging and innovative computer technologies; and
- (B) create a display that presents information on emerging and innovative technologies.

(5) The student describes quality and how it is measured in computer technology. The student is expected to:

- (A) distinguish between good and bad quality; and
- (B) describe how customers perceive quality.

(6) The student develops computer systems using the appropriate resources. The student is expected to:

- (A) describe the properties and characteristics of computer-related hardware and software; and
- (B) identify, select, and sequence computer resources.

(7) The student works safely with computer technology. The student is expected to:

- (A) master relevant safety tests;
- (B) follow safety manuals, instructions, and requirements;
- (C) describe hazardous materials and wastes associated with computer technology; and
- (D) dispose of hazardous materials and wastes appropriately.

(8) The student demonstrates proper computer and related-equipment maintenance. The student is expected to:

- (A) perform selected maintenance procedures on computer-related tools, equipment, and machines; and
- (B) describe the results of improper maintenance.

(9) The student manages a computer technology project or system. The student is expected to:

- (A) develop a plan for completing a computer technology project; and
- (B) participate in the organization and operation of a real or simulated computer project.

(10) The student applies the appropriate codes, laws, standards, or regulations related to computer technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), copyright, and software piracy. The student is expected to:

- (A) describe the importance of codes, laws, standards, or regulations;
- (B) identify areas where codes, laws, standards, or regulations may be required; and

(C) follow the appropriate codes, laws, standards, or regulations.

(11) The student describes the intended and unintended effects of technological solutions. The student is expected to:

(A) use an assessment strategy to determine the risks and benefits of technological developments in computer technology;

(B) describe how technology has affected individuals, societies, cultures, economies, and environments; and

(C) discuss the international effects of computer technology.

(12) The student identifies the factors that influence the evolution of computer technology. The student is expected to:

(A) describe how the development and use of computer technology is influenced by past events;

(B) describe change and the factors that affect the adoption or rejection of computer technology; and

(C) describe how and why technology evolves.

(13) The student solves problems, thinks critically, and makes decisions related to computer technology. The student is expected to:

(A) develop or improve a product by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technological solutions.

(14) The student identifies the factors that influence the cost of producing goods and services with computer technology. The student is expected to:

(A) develop a budget for a computer project; and

(B) determine the most effective strategies to minimize costs.

(15) The student integrates his/her communication, mathematics, and science knowledge and skills with computer technology. The student is expected to:

(A) use computer technology for written, verbal, and visual communication that is consistent with industry standards;

(B) describe binary and hexadecimal numbering systems; and

(C) identify and apply science principles used in computer technology.

(16) The student applies computer technology to the marketing of a product. The student is expected to:

(A) prepare a marketing plan for a(n) idea, product, or service; and

(B) discuss the effect of customer satisfaction on the image of a product or company.

(17) The student investigates career opportunities, requirements, and expectations in computer technology. The student is expected to:

(A) identify an area of interest in computer technology and investigate its entry level and advancement requirements; and

(B) describe the careers available in computer technology.

(18) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

(C) distinguish between the roles of team leaders and team members;

(D) identify characteristics of good leaders;

(E) identify employers' expectations and appropriate work habits;

(F) define discrimination, harassment, and equality;

(G) use time management techniques to develop and maintain work schedules and meet deadlines; and

(H) complete his/her work according to established criteria.

§123.14. Exploring Construction Technology.

(a) General requirements. This course is recommended for students in Grades 7-8. The prerequisite for this course is Technology Education.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student describes how a systems model can be used to describe construction activities. The student is expected to:

(A) apply the universal systems model to construction activities;

(B) identify the inputs, processes, outputs, and feedback associated with other systems used in construction;

(C) distinguish between architectural and civil construction systems and related construction systems; and

(D) describe how technological systems interact to achieve common goals.

(2) The student applies construction technology to specific tasks. The student is expected to:

(A) apply construction technology to individual or community problems;

(B) describe the factors that affect the purchase and use of constructed items; and

(C) identify and describe the roles of construction.

(3) The student designs an item for construction using appropriate design processes and techniques. The student is expected to:

(A) develop or improve a building or structure that meets a specified need; and

(B) identify areas where quality, reliability, and safety can be designed into a building or structure.

(4) The student investigates emerging and innovative construction technologies. The student is expected to:

(A) report on emerging and innovative construction technologies; and

(B) create a display that presents information on emerging and innovative technologies.

(5) The student describes quality and how it is measured in construction. The student is expected to:

(A) distinguish between good and bad quality; and

(B) describe how customers perceive quality.

(6) The student constructs buildings or structures using the appropriate tools, equipment, machines, materials and technical processes. The student is expected to:

(A) identify the chemical, mechanical and physical properties and standard units of measure of construction materials;

(B) identify the processes used in construction;

(C) use a variety of tools, equipment, and machines to construct buildings or structures; and

(D) construct an item.

(7) The student works safely with construction technology. The student is expected to:

(A) master relevant safety tests;

(B) follow safety manuals, instructions, and requirements;

(C) describe hazardous materials and wastes; and

(D) dispose of hazardous materials and wastes appropriately.

(8) The student describes the importance of maintenance in construction. The student is expected to:

(A) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and

(B) describe the results of improper maintenance.

(9) The student manages a construction technology project or system. The student is expected to:

(A) develop a plan for completing a construction technology project; and

(B) participate in the organization and operation of a real or simulated construction project.

(10) The student applies the appropriate codes, laws, standards, or regulations related to construction technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:

(A) describe the importance of codes, laws, standards, or regulations;

(B) identify areas where codes, laws, standards, or regulations may be required; and

(C) follow the appropriate codes, laws, standards, or regulations.

(11) The student describes the intended and unintended effects of technological solutions. The student is expected to:

(A) use an assessment strategy to determine the risks and benefits of technological developments in construction;

(B) describe how technology has affected individuals, societies, cultures, economies, and environments; and

(C) discuss the international effects of construction technology.

(12) The student identifies the factors that influence the evolution of construction technology. The student is expected to:

(A) describe how changes in construction technology affect business and industry;

(B) describe how the development and use of construction technology is influenced by past events;

(C) describe change and the factors that affect the adoption or rejection of construction technology;

(D) describe how and why technology evolves; and

(E) describe issues related to regional and community planning.

(13) The student demonstrates the ability to solve problems, think critically, and make decisions. The student is expected to:

(A) develop or improve a building or structure by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technological solutions.

(14) The student describes the factors related to the cost of construction projects. The student is expected to:

(A) develop a budget for a construction project;

(B) determine the most effective strategies to minimize costs;

(C) identify the financial factors associated with starting and operating construction enterprises; and

(D) explain the role of business in a free enterprise system.

(15) The student applies his/her communication, mathematics, and science knowledge and skills to construction activities. The student is expected to:

(A) use written, verbal, and visual communication techniques consistent with industry standards;

(B) use mathematics concepts in construction technology; and

(C) identify and apply science principles used in construction technology.

(16) The student describes basic product marketing in construction. The student is expected to:

(A) prepare a marketing plan for a(n) idea, product, or service; and

(B) discuss the effect of customer satisfaction on the image of a product or company.

(17) The student investigates career opportunities, requirements, and expectations in construction technology. The student is expected to:

(A) identify an area of interest in construction and investigate its entry level and advancement requirements; and

(B) describe the careers available in construction.

(18) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

(C) distinguish between the roles of team leaders and team members;

(D) identify characteristics of good leaders;

(E) identify employers' expectations and appropriate work habits;

(F) define discrimination, harassment, and equality;

(G) use time management techniques to develop and maintain work schedules and meet deadlines; and

(H) complete his/her work according to established criteria.

§123.15. Exploring Energy, Power, and Transportation Technology.

(a) General requirements. This course is recommended for students in Grades 7-8. The prerequisite for this course is Technology Education.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world.

The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student describes how a systems model can be used to describe energy, power, and transportation activities. The student is expected to:

(A) apply the universal systems model to energy, power, and transportation activities;

(B) identify the inputs, processes, outputs, and feedback associated with energy, power, and transportation systems;

(C) distinguish between mechanical, fluid, electrical, and thermal power systems;

(D) distinguish between various forms of energy;

(E) describe the differences between the various transportation modes, such as land, marine, air, and space;

(F) describe the technological systems in transportation, such as propulsion, suspension, guidance, control, support, and structure; and

(G) describe how technological systems interact to achieve common goals.

(2) The student applies energy, power, and transportation technology to specific tasks. The student is expected to:

(A) apply energy, power, and transportation technology to individual and community problems;

(B) describe the factors that affect the purchase and use of energy, power, and transportation technology; and

(C) identify and describe the roles of energy, power, and transportation.

(3) The student designs energy, power, and transportation products or services using appropriate design processes and techniques. The student is expected to:

(A) develop or improve energy, power, and transportation products or services that meet a specified need; and

(B) identify areas where quality, reliability, and safety can be designed into a product, service, or system.

(4) The student investigates emerging and innovative energy, power, and transportation technologies. The student is expected to:

(A) report on emerging and innovative energy, power, and transportation technologies; and

(B) create a display that presents information on emerging and innovative technologies.

(5) The student describes quality and how it is measured in energy, power, and transportation. The student is expected to:

(A) distinguish between good and bad quality; and

(B) describe how customers perceive quality.

(6) The student builds energy, power, and transportation devices using the appropriate tools, equipment, machines, materials and technical processes. The student is expected to:

(A) describe the chemical, mechanical and physical properties and standard units of measure of energy, power, and transportation materials and resources;

(B) contrast the characteristics and sources of energy and power;

(C) describe the processes used in energy, power, and transportation, such as conversion, control, transmission, and storage;

(D) describe the processes used in transportation, such as receiving, holding/storing, loading, moving, unloading, and delivering;

(E) use a variety of tools, equipment, and machines to build energy, power, and transportation items; and

(F) build an energy, power, and transportation product or system.

(7) The student works safely with energy, power, and transportation technology. The student is expected to:

(A) master relevant safety tests;

(B) follow safety manuals, instructions, and requirements;

(C) describe hazardous materials and wastes; and

(D) dispose of hazardous materials and wastes appropriately.

(8) The student describes the importance of maintenance in energy, power, and transportation. The student is expected to:

(A) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and

(B) describe the results of improper maintenance.

(9) The student manages an energy, power, and transportation technology project or system. The student is expected to:

(A) develop a plan for completing an energy, power, and transportation technology project; and

(B) participate in the organization and operation of a real or simulated energy, power, and transportation project.

(10) The student applies the appropriate codes, laws, standards, or regulations related to energy, power, and transportation technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:

(A) describe the importance of codes, laws, standards, or regulations;

(B) identify areas where codes, laws, standards, or regulations may be required; and

(C) follow the appropriate codes, laws, standards, or regulations.

(11) The student describes the intended and unintended effects of technological solutions. The student is expected to:

(A) use an assessment strategy to determine the risks and benefits of technological developments in energy, power, and transportation;

(B) describe how technology has affected individuals, societies, cultures, economies, and environments; and

(C) discuss the international effects of energy, power, and transportation technology.

(12) The student identifies the factors that influence the evolution of energy, power, and transportation technology. The student is expected to:

(A) describe how changes in energy, power, and transportation technology affect business and industry;

(B) describe how the development and use of energy, power, and transportation technology is influenced by past events;

(C) describe change and the factors that affect the adoption or rejection of energy, power, and transportation technology; and

(D) describe how and why technology evolves.

(13) The student solves problems, thinks critically, and makes decisions related to energy, power, and transportation technology. The student is expected to:

(A) develop or improve an energy, power, and transportation product or service by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technological solutions.

(14) The student describes the economic factors related to energy, power, and transportation technology. The student is expected to:

(A) develop a budget for an energy, power, and transportation project;

(B) determine the most effective strategies to minimize costs;

(C) identify the financial factors associated with starting and operating energy, power, and transportation enterprises; and

(D) explain the role of business in a free enterprise system.

(15) The student applies his/her communication, mathematics, and science knowledge and skills to energy, power, and transportation activities. The student is expected to:

(A) use written, verbal, and visual communication techniques consistent with industry standards;

(B) use mathematics concepts in energy, power, and transportation technology; and

(C) identify and apply science principles used in energy, power, and transportation technology.

(16) The student describes the marketing of energy, power, and transportation products and services. The student is expected to:

(A) prepare a marketing plan for a(n) idea, product, or service; and

(B) discuss the effect of customer satisfaction on the image of a product or company.

(17) The student investigates career opportunities, requirements, and expectations in energy, power, and transportation technology. The student is expected to:

(A) identify an area of interest in energy, power, and transportation, and investigate its entry-level and advancement requirements; and

(B) describe the careers available in energy, power, and transportation.

(18) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

(C) distinguish between the roles of team leaders and team members;

(D) identify characteristics of good leaders;

(E) identify employers' expectations and appropriate work habits;

(F) define discrimination, harassment, and equality;

(G) use time management techniques to develop and maintain work schedules and meet deadlines; and

(H) complete his/her work according to established criteria.

§123.16. Exploring Manufacturing Technology.

(a) General requirements. This course is recommended for students in Grades 7-8. The prerequisite for this course is Technology Education.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student describes how a systems model can be used to describe manufacturing activities. The student is expected to:

(A) apply the universal systems model to manufacturing activities;

(B) identify the inputs, processes, outputs, and feedback associated with manufacturing systems;

(C) distinguish between continuous, intermittent, custom, and other manufacturing systems; and

(D) describe how technological systems interact to achieve common goals.

(2) The student applies manufacturing technology to specific tasks. The student is expected to:

(A) apply manufacturing technology to individual or community problems;

(B) describe the factors that affect the purchase and use of manufacturing items; and

(C) identify and describe the roles of manufacturing.

(3) The student designs a product or manufacturing system using appropriate design processes and techniques. The student is expected to:

(A) develop or improve a product or manufacturing system that meets a specified need; and

(B) identify areas where quality, reliability, and safety can be designed into a product or system.

(4) The student investigates emerging and innovative manufacturing technologies. The student is expected to:

(A) report on emerging and innovative manufacturing technologies; and

(B) create a display that presents information on emerging and innovative technologies.

(5) The student describes quality and how it is measured in manufacturing. The student is expected to:

(A) distinguish between good and bad quality; and

(B) describe how customers perceive quality.

(6) The student builds products or systems using the appropriate tools, equipment, machines, materials and technical processes. The student is expected to:

(A) identify the chemical, mechanical, and physical properties of manufacturing materials;

(B) identify the processes used in manufacturing;

(C) use a variety of tools, equipment, and machines to manufacture products; and

(D) manufacture an item.

(7) The student works safely with tools, equipment, machines, and materials used in manufacturing technology. The student is expected to:

(A) master relevant safety tests;

(B) follow safety manuals, instructions, and requirements;

(C) describe hazardous materials and wastes; and

(D) dispose of hazardous materials and wastes appropriately.

(8) The student describes the importance of maintenance in manufacturing. The student is expected to:

(A) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and

(B) describe the results of improper maintenance.

(9) The student manages a manufacturing technology project or system. The student is expected to:

(A) develop a plan for completing a manufacturing project; and

(B) participate in the organization and operation of a real or simulated manufacturing project.

(10) The student applies the appropriate codes, laws, standards, or regulations related to manufacturing technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:

(A) describe the importance of codes, laws, standards, or regulations;

(B) identify areas where codes, laws, standards, or regulations may be required; and

(C) follow the appropriate codes, laws, standards, or regulations.

(11) The student describes the intended and unintended effects of technological solutions. The student is expected to:

(A) use an assessment strategy to determine the risks and benefits of technological developments in manufacturing;

(B) describe how technology has affected individuals, societies, cultures, economies, and environments; and

(C) discuss the international effects of manufacturing technology.

(12) The student identifies the factors that influence the evolution of manufacturing technology. The student is expected to:

(A) describe how changes in manufacturing technology affect business and industry;

(B) describe how the development and use of manufacturing technology is influenced by past events;

(C) describe change and the factors that affect the adoption or rejection of manufacturing technology; and

(D) describe how and why technology evolves.

(13) The student solves problems, thinks critically, and makes decisions related to manufacturing technology. The student is expected to:

(A) develop or improve a product by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technological solutions.

(14) The student identifies the factors that influence the cost of producing goods and services in manufacturing. The student is expected to:

(A) develop a budget for manufacturing a product;

(B) determine the most effective strategies to minimize costs;

(C) identify the financial factors associated with starting and operating manufacturing enterprises; and

(D) explain the role of business in a free enterprise system.

(15) The student applies his/her communication, mathematics, and science knowledge and skills to manufacturing activities. The student is expected to:

(A) use written, verbal, and visual communication techniques consistent with industry standards;

(B) use mathematics concepts in manufacturing technology;

(C) identify and apply science principles used in manufacturing technology; and

(D) use the appropriate units of measure.

(16) The student describes basic product marketing processes and techniques. The student is expected to:

(A) prepare a marketing plan for a(n) idea, product, or service; and

(B) discuss the effect of customer satisfaction on the image of a product or company.

(17) The student investigates career opportunities, requirements, and expectations in manufacturing technology. The student is expected to:

(A) identify an area of interest in manufacturing and investigate its entry-level and advancement requirements; and

(B) describe the careers available in manufacturing.

(18) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

(C) distinguish between the roles of team leaders and team members;

(D) identify characteristics of good leaders;

(E) identify employers' expectations and appropriate work habits;

(F) define discrimination, harassment, and equality;

(G) use time management techniques to develop and maintain work schedules and meet deadlines; and

(H) complete his/her work according to established criteria.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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For further information, please call: (512) 463-9701



Subchapter C. Overview, High School

19 TAC §§123.31–123.33

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§123.31. Implementation of Texas Essential Knowledge and Skills for Technology Education/Industrial Technology Education, Overview, High School.

The provisions of Chapter 123, Subchapters C-G, shall supersede §75.85 of this title (relating to Industrial Technology Education) beginning September 1, 1998.

§123.32. Technology Systems (One Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student describes how a systems model can be used to describe manufacturing, construction, communication, energy, power, transportation, and bio-related technology activities. The student is expected to:

(A) apply the universal systems model to technological activities;

(B) identify the inputs, processes, outputs, and feedback associated with each of the technology systems; and

(C) describe how technological systems interact to achieve common goals.

(2) The student describes how manufacturing, construction, communication, energy, power, transportation, and bio-related technology can be used to solve practical problems. The student is expected to:

(A) apply manufacturing, construction, communication, energy, power, transportation, and bio-related technology to individual or community problems;

(B) describe the factors that affect the purchase and use of manufacturing, construction, communication, energy, power, transportation, and bio-related technology products and services;

(C) identify and describe the roles of manufacturing, construction, communication, energy, power, transportation, and bio-related technology in business and industry; and

(D) characterize technological activities as applying technology, designing technology, producing technology, and assessing technology.

(3) The student uses appropriate design processes and techniques to develop or improve products or services in manufacturing, construction, communication, energy, power, transportation, and bio-related technology. The student is expected to:

(A) develop or improve a product or system that meets a specified need; and

(B) identify areas where quality, reliability, and safety can be designed into a product or service.

(4) The student describes emerging and innovative manufacturing, construction, communication, energy, power, transportation, and bio-related technologies. The student is expected to:

(A) report on emerging and innovative technologies in at least two of the following content areas: manufacturing, construction, communication, energy, power, transportation, or bio-related technologies; and

(B) conduct research and experimentation in manufacturing, construction, communication, energy, power, transportation, and bio-related technology.

(5) The student describes the importance of quality and how it is measured in manufacturing, construction, communication, energy, power, transportation, and bio-related technology. The student is expected to:

(A) distinguish between good and bad quality; and

(B) describe how customers perceive quality.

(6) The student uses a variety of tools, equipment, machines, materials and technical processes to build products. The student is expected to:

(A) describe the chemical, mechanical, and physical properties of manufacturing, construction, communication, energy, power, transportation, and bio-related technology materials;

(B) describe the basic processes used in manufacturing, construction, communication, energy, power, transportation, and bio-related technology;

(C) use a variety of tools, equipment, and machines; and

(D) produce a product or provide a service.

(7) The student works safely with tools, equipment, machines, and materials used in manufacturing, construction, communication, energy, power, transportation, and bio-related technology. The student is expected to:

- (A) master relevant safety tests;
- (B) follow safety manuals, instructions, and requirements;
- (C) identify and classify hazardous materials and wastes; and
- (D) dispose of hazardous materials and wastes appropriately.

(8) The student describes the importance of maintenance in manufacturing, construction, communication, energy, power, transportation, and bio-related technology. The student is expected to:

- (A) handle and store tools and materials correctly;
- (B) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and
- (C) describe the results of negligent or improper maintenance.

(9) The student manages a technology project or system. The student is expected to:

- (A) participate in the organization and operation of a real or simulated manufacturing, construction, communication, energy, power, transportation, and bio-related technology project; and
- (B) identify and follow the steps needed to complete a project.

(10) The student applies the appropriate codes, laws, standards, or regulations related to manufacturing, construction, communication, energy, power, transportation, and bio-related technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:

- (A) describe the importance of codes, laws, standards, or regulations;
- (B) identify areas where codes, laws, standards, or regulations may be required; and
- (C) follow the appropriate codes, laws, standards, or regulations.

(11) The student describes the intended and unintended effects of technological solutions. The student is expected to:

- (A) use an assessment strategy to determine the risks and benefits of technological solutions;
- (B) describe how technology has affected individuals, societies, cultures, economies, and environments; and
- (C) discuss the international effects of technology.

(12) The student identifies the factors that influence the evolution of manufacturing, construction, communication, energy, power, transportation, and bio-related technology. The student is expected to:

(A) describe how changes in technology affect business and industry;

(B) describe how the development and use of technology is influenced by past events;

(C) describe change and the factors that affect the adoption or rejection of technology; and

(D) describe how and why technology evolves.

(13) The student solves problems, thinks critically, and makes decisions related to technology. The student is expected to:

(A) develop or improve a product by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technology.

(14) The student identifies the factors that influence the cost of producing goods and services in manufacturing, construction, communication, energy, power, transportation, and bio-related technology. The student is expected to:

(A) develop a budget for a product or project;

(B) determine the most effective strategies to minimize costs;

(C) identify the financial factors associated with starting and operating enterprises; and

(D) describe the role of business in a free enterprise system.

(15) The student applies his/her communication, mathematics, and science knowledge and skills to manufacturing, construction, communication, energy, power, transportation, and bio-related technology activities. The student is expected to:

(A) use written, verbal, and visual communication techniques consistent with industry standards;

(B) use mathematics concepts in technology; and

(C) identify and apply science principles used in technology.

(16) The student describes basic marketing processes and techniques. The student is expected to:

(A) prepare a marketing plan for a(n) idea, product, or service; and

(B) discuss the effect of customer satisfaction on the image of a product or company.

(17) The student selects and reports on career opportunities, requirements, and expectations in manufacturing, construction, communication, energy, power, transportation, and bio-related technology. The student is expected to:

(A) identify an area of interest in manufacturing, construction, communication, energy, power, transportation, and bio-related technology, and investigate its entry-level and advancement requirements and its growth potential; and

(B) describe the careers available in technology and engineering.

(18) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

- (A) describe how teams function;
- (B) use teamwork to solve problems;
- (C) distinguish between the roles of team leaders and team members;
- (D) identify characteristics of good leaders;
- (E) identify employers' expectations and appropriate work habits;
- (F) define discrimination, harassment, and equality;
- (G) use time management techniques to develop and maintain work schedules and meet deadlines; and
- (H) complete his/her work according to established criteria.

§123.33. Engineering Principles (One Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student describes how a systems model can be used to describe engineering and technological activities. The student is expected to:

- (A) identify the inputs, processes, output, and feedback associated with engineering and technological systems;
- (B) identify the inputs, processes, outputs, and feedback associated with engineering technological activities;
- (C) describe the difference between open and closed systems; and
- (D) describe how technological systems interact to achieve common goals.

(2) The student applies engineering concepts to specific problems. The student is expected to:

- (A) distinguish between engineering, science, and technology;
- (B) use engineering concepts to solve practical problems;

(C) use calculators and computers to help solve problems;

- (D) use computers for simulation;
- (E) use tools and laboratory equipment for testing and evaluation; and
- (F) use precision measuring instruments.

(3) The student designs products or systems using appropriate design processes and techniques. The student is expected to:

- (A) improve a product or system that meets a specified need;
- (B) identify areas where quality, reliability, and safety can be designed into a product or system;
- (C) interpret and produce engineering drawings using standard technical communication techniques; and
- (D) describe patents and the patenting process.

(4) The student investigates emerging and innovative applications of technology in engineering. The student is expected to:

- (A) report on emerging and innovative applications of technology in engineering; and
- (B) research and experiment with new technologies.

(5) The student describes quality and how it is measured in engineering. The student is expected to:

- (A) identify different quality control applications in engineering; and
- (B) describe how customers perceive the quality of products and services and how they affect engineering decisions.

(6) The student builds products or systems using the appropriate tools, equipment, machines, materials and technical processes. The student is expected to:

- (A) identify the chemical, mechanical, and physical properties of engineering materials;
- (B) identify and describe the processes needed to complete a project;
- (C) use a variety of tools, equipment, machines, and materials; and
- (D) design and produce an item.

(7) The student practices safe work habits. The student is expected to:

- (A) master relevant safety tests;
- (B) follow safety manuals, instructions, and requirements;
- (C) identify and classify hazardous materials and wastes; and
- (D) dispose of hazardous materials and wastes appropriately.

(8) The student describes the importance of maintenance. The student is expected to:

(A) perform basic maintenance on selected tools, equipment, and machines;

(B) handle and store tools and materials correctly; and

(C) describe the results of negligent or improper maintenance.

(9) The student manages an engineering project. The student is expected to:

(A) participate in the organization and operation of a real or simulated engineering project; and

(B) develop a plan for completing an individual project.

(10) The student applies the appropriate codes, laws, standards, or regulations, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:

(A) describe the importance of codes, laws, standards, or regulations;

(B) identify areas where codes, laws, standards, or regulations may be required; and

(C) follow the appropriate codes, laws, standards, or regulations.

(11) The student describes the intended and unintended effects of technological solutions. The student is expected to:

(A) use an assessment strategy to determine the risks and benefits of engineering activities; and

(B) describe how technology has affected individuals, societies, cultures, economies, and environments.

(12) The student describes the factors that affect the evolution of technology. The student is expected to:

(A) describe how changes in technology affect engineering practices;

(B) describe how the development and use of technology in engineering is influenced by past events;

(C) discuss the international effects of technology;

(D) describe how advancements in technology have affected the field of engineering;

(E) describe change and the factors that affect the adoption or rejection of new ideas; and

(F) describe how and why technology evolves.

(13) The student solves problems, thinks critically, and makes decisions related to engineering. The student is expected to:

(A) use an engineering approach to problem solving to improve a product;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed solutions; and

(C) apply decision-making techniques to engineering problems and solutions.

(14) The student identifies the factors that influence the cost of an item or service. The student is expected to:

(A) work on a budget for a project; and

(B) determine the most effective strategies to minimize costs.

(15) The student applies his/her communication, mathematics, and science knowledge and skills to engineering activities. The student is expected to:

(A) use written, verbal, and visual communication techniques consistent with industry standards;

(B) locate relevant information needed to solve problems;

(C) use mathematics concepts to solve engineering problems;

(D) identify and apply science principles used to solve problems; and

(E) use the appropriate units of measure.

(16) The student describes the relationship between engineering and marketing. The student is expected to:

(A) prepare a marketing plan for a(n) idea, product, or service;

(B) discuss the effect of customer satisfaction on the image of a product or company; and

(C) describe how customer demands influence the design of an object.

(17) The student selects and reports on career opportunities, requirements, and expectations in engineering and technology. The student is expected to:

(A) identify an area of interest in engineering and investigate its entry-level and advancement requirements and its growth potential;

(B) distinguish between engineering, science, and technology;

(C) describe the various specializations in engineering; and

(D) describe the roles and functions of engineers, technologists, and technicians.

(18) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

(C) distinguish between the roles of team leaders and team members;

(D) identify characteristics of good leaders;

(E) identify employers' expectations and appropriate work habits;

(F) define discrimination, harassment, and equality;

(G) use time management techniques to develop and maintain work schedules and meet deadlines; and

(H) complete his/her work according to established criteria.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research
Texas Education Agency

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For further information, please call: (512) 463-9701



Subchapter D. Exploratory, High School

19 TAC §§123.41–123.47

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§123.41. Implementation of Texas Essential Knowledge and Skills for Technology Education/Industrial Technology Education, Exploratory, High School.

The provisions of Chapter 123, Subchapters C-G, shall supersede §75.85 of this title (relating to Industrial Technology Education) beginning September 1, 1998.

§123.42. Communication Systems (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 9-12. The recommended prerequisite for this course is Technology Systems.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student describes how a systems model relates to communication activities. The student is expected to:

(A) apply the universal systems model to communication activities;

(B) identify the inputs, processes, outputs, and feedback associated with communications systems; and

(C) describe how technological systems interact to achieve common goals.

(2) The student selects and uses the proper communication technology to meet practical objectives. The student is expected to:

(A) apply communication technology to individual or community problems;

(B) describe the factors that affect the use and interpretation of communication products and services;

(C) identify and describe the roles of communication in business and industry, such as informing, persuading, and educating; and

(D) distinguish between photographic, digital graphic, printed graphic, technical graphic, audio, and video communication systems.

(3) The student designs communication products using appropriate communication design processes and techniques. The student is expected to:

(A) describe the design processes and techniques used in communication technology;

(B) develop or improve communication products that meet specified needs; and

(C) identify areas where quality can be designed into communication products, services, or systems.

(4) The student investigates emerging and innovative communication technologies. The student is expected to:

(A) report on emerging and innovative communication technologies; and

(B) conduct research and experimentation in communication technology.

(5) The student describes quality and how it is measured in communications. The student is expected to:

(A) describe and apply different quality control applications; and

(B) apply continuous quality improvement techniques to the production of communication products and services.

(6) The student produces communication items using the appropriate tools, equipment, machines, materials and technical processes. The student is expected to:

(A) describe the chemical and physical properties of communication materials;

(B) describe the processes used in photographic, digital graphic, printed graphic, technical graphic, audio, and video communication systems;

(C) use a variety of tools, equipment, machines, and materials to produce communication products and services; and

(D) produce communication items.

(7) The student works safely with communication tools, equipment, machines, and materials. The student is expected to:

(A) master relevant safety tests;

(B) follow safety manuals, instructions, and requirements;

(C) identify and classify hazardous materials and wastes; and

(D) dispose of hazardous materials and wastes appropriately.

(8) The student describes the importance of maintenance in communications. The student is expected to:

(A) handle and store tools and materials correctly;

(B) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and

(C) describe the results of negligent or improper maintenance.

(9) The student manages a communication technology project. The student is expected to:

(A) develop a plan for completing a communication technology project; and

(B) participate in the organization and operation of a real or simulated communication project.

(10) The student applies the appropriate codes, laws, standards, or regulations related to communication technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:

(A) describe the importance of codes, laws, standards, or regulations;

(B) identify areas where codes, laws, standards, or regulations may be required; and

(C) follow the appropriate codes, laws, standards, or regulations.

(11) The student describes the intended and unintended effects of technological solutions. The student is expected to:

(A) use an assessment strategy to determine the risks and benefits of technological solutions;

(B) describe how technology has affected individuals societies, cultures, economies, and environments; and

(C) discuss the international effects of communication technology.

(12) The student identifies the factors that influence the evolution of communication technology. The student is expected to:

(A) describe how changes in communication technology affect business and industry;

(B) describe how the development and use of communication technology are influenced by past events;

(C) describe change and the factors that affect the adoption or rejection of communication technology; and

(D) describe how and why technology evolves.

(13) The student solves problems, thinks critically, and makes decisions related to communications. The student is expected to:

(A) develop or improve a product by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technological solutions.

(14) The student identifies the factors that influence the cost of producing communication goods and services. The student is expected to:

(A) develop a budget for a communication product or project;

(B) determine the most effective strategies to minimize costs;

(C) identify the financial factors associated with starting and operating communication enterprises; and

(D) explain the role of business in a free enterprise system.

(15) The student applies communication, mathematics, and science knowledge and skills to communication activities. The student is expected to:

(A) use audio and visual communication techniques consistent with industry standards;

(B) use mathematics concepts in communication technology;

(C) identify and apply science principles used in communication technology; and

(D) use the appropriate units of measure.

(16) The student describes basic product and service marketing processes and techniques. The student is expected to:

(A) prepare a marketing plan for a(n) idea, product, or service; and

(B) discuss the effect of customer satisfaction on the image of a product or company.

(17) The student investigates career opportunities, requirements, and expectations in communication technology. The student is expected to:

(A) identify an area of interest in communication and investigate its entry-level and advancement requirements and its growth potential; and

(B) describe the careers available in communication technology.

(18) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

- (C) distinguish between the roles of team leaders and team members;
- (D) identify characteristics of good leaders;
- (E) identify employers' expectations and appropriate work habits;
- (F) define discrimination, harassment, and equality;
- (G) use time management techniques to develop and maintain work schedules and meet deadlines; and
- (H) complete his/her work according to established criteria.

§123.43. Manufacturing Systems (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 9-12. The recommended prerequisite for this course is Technology Systems.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student describes how a systems model can be used to describe manufacturing activities. The student is expected to:

- (A) apply the universal systems model to manufacturing activities;
- (B) identify the inputs, processes, outputs, and feedback associated with manufacturing activities; and
- (C) describe how technological systems interact to achieve common goals.

(2) The student selects and uses manufacturing technology to meet practical objectives. The student is expected to:

- (A) apply manufacturing technology to individual or community problems;
- (B) describe the factors that affect the purchase and use of manufactured items;
- (C) identify and describe the roles of manufacturing; and
- (D) distinguish between continuous, intermittent, custom, and other manufacturing systems.

(3) The student designs a product using appropriate design processes and techniques. The student is expected to:

- (A) describe the design processes and techniques used in manufacturing;

(B) develop or improve a product that meets specified objectives; and

(C) identify areas where quality, reliability, and safety can be designed into a product system.

(4) The student investigates emerging and innovative manufacturing technologies. The student is expected to:

- (A) report on emerging and innovative manufacturing technologies; and
- (B) conduct research and experimentation in manufacturing technology.

(5) The student describes quality and how it is measured in manufacturing. The student is expected to:

- (A) describe different quality control applications in manufacturing; and
- (B) apply continuous quality improvement techniques to the production of an item.

(6) The student manufactures products using the appropriate tools, equipment, machines, materials and technical processes. The student is expected to:

- (A) describe the chemical, mechanical, and physical properties of manufacturing materials;
- (B) describe the manufacturing processes;
- (C) use a variety of tools, equipment, machines, and materials to manufacture products; and
- (D) manufacture an item.

(7) The student works safely with manufacturing technology. The student is expected to:

- (A) master relevant safety tests;
- (B) follow safety manuals, instructions, and requirements;
- (C) identify and classify hazardous materials and wastes; and
- (D) dispose of hazardous materials and wastes appropriately.

(8) The student describes the importance of maintenance in manufacturing. The student is expected to:

- (A) handle and store tools and materials correctly;
- (B) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and
- (C) describe the results of negligent or improper maintenance.

(9) The student manages a manufacturing technology project or system. The student is expected to:

- (A) develop a plan for completing a manufacturing technology project; and
- (B) participate in the organization and operation of a real or simulated manufacturing project.

(10) The student applies the appropriate codes, laws, standards, or regulations related to manufacturing technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:

- (A) describe the importance of codes, laws, standards, or regulations;
- (B) identify areas where codes, laws, standards, or regulations may be required; and
- (C) follow the appropriate codes, laws, standards, or regulations.

(11) The student describes the intended and unintended effects of technological solutions. The student is expected to:

- (A) use an assessment strategy to determine the risks and benefits of technological developments in manufacturing;
- (B) describe how technology has affected individuals, societies, cultures, economies, and environments; and
- (C) discuss the international effects of manufacturing technology.

(12) The student identifies the factors that influence the evolution of manufacturing technology. The student is expected to:

- (A) describe how changes in manufacturing technology affect business and industry;
- (B) describe how the development and use of manufacturing technology are influenced by past events;
- (C) describe change and the factors that affect the adoption or rejection of manufacturing technology; and
- (D) describe how and why technology evolves.

(13) The student solves problems, thinks critically, and makes decisions related to manufacturing. The student is expected to:

- (A) develop or improve a product by following a problem-solving strategy;
- (B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and
- (C) apply decision-making techniques to the selection of manufacturing technology.

(14) The student identifies the factors that influence the cost of producing goods and services in manufacturing. The student is expected to:

- (A) develop a budget for manufacturing a product;
- (B) determine the most effective strategies to minimize costs;
- (C) identify the financial factors associated with starting and operating manufacturing enterprises; and
- (D) explain the role of business in a free enterprise system.

(15) The student applies his/her communication, mathematics, and science knowledge and skills to manufacturing activities. The student is expected to:

- (A) use written, verbal, and visual communication techniques consistent with industry standards;
- (B) use mathematics concepts in manufacturing technology;
- (C) identify and apply science principles used in manufacturing technology; and
- (D) use the appropriate units of measure.

(16) The student describes basic product and service marketing processes and techniques. The student is expected to:

- (A) prepare a marketing plan for a(n) idea, product, or service; and
- (B) discuss the effect of customer satisfaction on the image of a product or company.

(17) The student investigates career opportunities, requirements, and expectations in manufacturing technology. The student is expected to:

- (A) identify an area of interest in manufacturing and investigate its entry-level and advancement requirements and its growth potential; and
- (B) describe the careers available in manufacturing.

(18) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

- (A) describe how teams function;
- (B) use teamwork to solve problems;
- (C) distinguish between the roles of team leaders and team members;
- (D) identify characteristics of good leaders;
- (E) identify employers' expectations and appropriate work habits;
- (F) define discrimination, harassment, and equality;
- (G) use time management techniques to develop and maintain work schedules and meet deadlines; and
- (H) complete his/her work according to established criteria.

§123.44. Construction Systems (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 9-12. The recommended prerequisite for this course is Technology Systems.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting

and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student describes how a systems model can be used to describe construction activities. The student is expected to:

- (A) apply the universal systems model to construction activities;
- (B) identify the inputs, processes, outputs, and feedback associated with construction systems;
- (C) describe the subsystems used in construction; and
- (D) describe how technological systems interact to achieve common goals.

(2) The student selects and uses the proper construction technology to meet practical objectives. The student is expected to:

- (A) distinguish between architectural and civil construction systems and related construction systems;
- (B) apply construction technology to individual or community problems;
- (C) describe the factors that affect the purchase and use of constructed items; and
- (D) identify and describe the roles of construction.

(3) The student designs an item for construction using appropriate design processes and techniques. The student is expected to:

- (A) describe the design processes and techniques used in construction;
- (B) develop or improve a building or structure that meets specified needs; and
- (C) identify areas where quality, reliability, and safety can be designed into a building or structure.

(4) The student investigates emerging and innovative construction technologies. The student is expected to:

- (A) report on emerging and innovative construction technologies; and
- (B) conduct research and experimentation in construction technology.

(5) The student describes quality and how it is measured in construction. The student is expected to:

- (A) describe different quality control applications in construction; and
- (B) apply continuous quality improvement techniques to the construction of a building or structure.

(6) The student builds buildings or structures using the appropriate tools, equipment, machines, materials and technical processes. The student is expected to:

(A) describe the chemical, mechanical and physical properties of construction materials;

(B) describe the processes used in construction;

(C) use a variety of tools, equipment, and machines to construct buildings or structures; and

(D) construct a building or structure.

(7) The student works safely with construction tools, equipment, machines, and materials. The student is expected to:

- (A) master relevant safety tests;
- (B) follow safety manuals, instructions, and requirements;
- (C) identify and classify hazardous materials and wastes; and
- (D) dispose of hazardous materials and wastes appropriately.

(8) The student describes the importance of maintenance in construction. The student is expected to:

- (A) handle and store tools and materials correctly;
- (B) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and
- (C) describe the results of negligent or improper maintenance.

(9) The student manages a construction project. The student is expected to:

- (A) develop a plan for completing a construction project; and
- (B) participate in the organization and operation of a real or simulated construction project.

(10) The student applies the appropriate codes, laws, standards, or regulations related to construction technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:

- (A) describe the importance of codes, laws, standards, or regulations;
- (B) identify areas where codes, laws, standards, or regulations may be required; and
- (C) follow the appropriate codes, laws, standards, or regulations.

(11) The student describes the intended and unintended effects of technological solutions. The student is expected to:

- (A) use an assessment strategy to determine the risks and benefits of technological developments in construction;
- (B) describe how technology has affected individuals, societies, cultures, economies, and environments;
- (C) discuss the international effects of construction technology; and

(D) describe the issues related to regional and community planning.

(12) The student identifies the factors that influence the evolution of construction technology. The student is expected to:

(A) describe how changes in construction technology affect business and industry;

(B) describe how the development and use of construction technology are influenced by past events;

(C) describe change and the factors that affect the adoption or rejection of construction technology; and

(D) describe how and why technology evolves.

(13) The student solves problems, thinks critically, and makes decisions related to construction technology. The student is expected to:

(A) develop or improve a building or structure by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technological solutions.

(14) The student identifies the factors that influence the cost of goods and services in construction projects. The student is expected to:

(A) develop a budget for a construction project;

(B) determine the most effective strategies to minimize costs;

(C) identify the financial factors associated with starting and operating construction enterprises; and

(D) explain the role of business in a free enterprise system.

(15) The student applies his/her communication, mathematics, and science knowledge and skills to construction activities. The student is expected to:

(A) use written, verbal, and visual communication techniques consistent with industry standards;

(B) use mathematics concepts in construction technology;

(C) identify and apply science principles used in construction technology; and

(D) use the appropriate units of measure.

(16) The student describes basic product marketing processes and techniques used in construction. The student is expected to:

(A) prepare a marketing plan for a(n) idea, product, or service; and

(B) discuss the effect of customer satisfaction on the image of a product or company.

(17) The student investigates career opportunities, requirements, and expectations in construction technology. The student is expected to:

(A) identify an area of interest in construction and investigate its entry-level and advancement requirements and its growth potential; and

(B) describe the careers available in construction technology.

(18) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

(C) distinguish between the roles of team leaders and team members;

(D) identify characteristics of good leaders;

(E) identify employers' expectations and appropriate work habits;

(F) define discrimination, harassment, and equality;

(G) use time management techniques to develop and maintain work schedules and meet deadlines; and

(H) complete his/her work according to established criteria.

§123.45. Energy, Power, and Transportation Systems (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 9-12. The recommended prerequisite for this course is Technology Systems.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student describes how a systems model can be used to describe energy, power, and transportation activities. The student is expected to:

(A) apply the universal systems model to energy, power, and transportation activities;

(B) identify the inputs, processes, outputs, and feedback associated with energy, power, and transportation systems;

(C) distinguish between various forms of energy; and

(D) describe how technological systems interact to achieve common goals.

(2) The student applies energy, power, and transportation technology to specific tasks. The student is expected to:

(A) apply energy, power, and transportation technology to individual and community problems;

(B) distinguish between mechanical, fluid, electrical, and thermal power systems;

(C) describe the factors that affect the purchase and use of energy, power, and transportation products and services; and

(D) identify and describe the roles of energy, power, and transportation systems.

(3) The student designs energy, power, and transportation products or services using appropriate design processes and techniques. The student is expected to:

(A) describe the design processes and techniques used in energy, power, and transportation;

(B) develop or improve energy, power, and transportation products or services that meet a specified need; and

(C) identify areas where quality, reliability, and safety can be designed into a product, service, or system.

(4) The student investigates emerging and innovative energy, power, and transportation technologies. The student is expected to:

(A) report on emerging and innovative energy, power, and transportation technologies; and

(B) conduct research and experimentation in energy, power, and transportation technology.

(5) The student describes quality and how it is measured in energy, power, and transportation. The student is expected to:

(A) describe different quality control applications in energy, power, and transportation; and

(B) apply continuous quality improvement techniques to the use and production of energy, power, and transportation.

(6) The student builds energy, power, and transportation devices using the appropriate tools, equipment, machines, materials, and technical processes. The student is expected to:

(A) describe the chemical, mechanical and physical properties of energy, power, and transportation materials and resources;

(B) contrast the characteristics and sources of energy and power;

(C) describe the processes used in energy, power, and transportation;

(D) use a variety of tools, equipment, and machines to build energy, power, and transportation items; and

(E) build an energy, power, and transportation product or system.

(7) The student works safely with energy, power, and transportation technology. The student is expected to:

(A) master relevant safety tests;

(B) follow safety manuals, instructions, and requirements;

(C) identify and classify hazardous materials and wastes; and

(D) dispose of hazardous materials and wastes appropriately.

(8) The student describes the importance of maintenance in energy, power, and transportation. The student is expected to:

(A) handle and store tools and materials correctly;

(B) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and

(C) describe the results of negligent or improper maintenance.

(9) The student manages an energy, power, and transportation technology project or system. The student is expected to:

(A) develop a plan for completing an energy, power, and transportation technology project; and

(B) participate in the organization and operation of the project.

(10) The student applies the appropriate codes, laws, and regulations.

(C) describe change and the factors that affect the adoption or rejection of energy, power, and transportation technology; and

(D) describe how and why technology evolves in energy, power, and transportation.

(13) The student solves problems, thinks critically, and makes decisions related to energy, power, and transportation technology. The student is expected to:

(A) develop or improve an energy, power, and transportation product or service by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technological solutions.

(14) The student identifies the factors that influence the cost of producing goods and services related to energy, power, and transportation technology. The student is expected to:

(A) develop a budget for an energy, power, and transportation project;

(B) determine the most effective strategies to minimize costs;

(C) identify the financial factors associated with starting and operating energy, power, and transportation enterprises; and

(D) explain the role of business in a free enterprise system.

(15) The student applies his/her communication, mathematics, and science knowledge and skills to energy, power, and transportation activities. The student is expected to:

(A) use written, verbal, and visual communication techniques consistent with industry standards;

(B) use mathematics concepts in energy, power, and transportation technology;

(C) identify and apply science principles used in energy, power, and transportation technology; and

(D) use the appropriate units of measure.

(16) The student describes basic product and service marketing in energy, power, and transportation. The student is expected to:

(A) prepare a marketing plan for a(n) idea, product, or service; and

(B) discuss the effect of customer satisfaction on the image of a product or company.

(17) The student investigates career opportunities, requirements, and expectations in energy, power, and transportation technology. The student is expected to:

(A) identify an area of interest in energy, power, and transportation, and investigate its entry-level and advancement requirements and its growth potential; and

(B) describe the type of careers available in energy, power, and transportation technology.

(18) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

(C) distinguish between the roles of team leaders and team members;

(D) identify characteristics of good leaders;

(E) identify employers' expectations and appropriate work habits;

(F) define discrimination, harassment, and equality;

(G) use time management techniques to develop and maintain work schedules and meet deadlines; and

(H) complete his/her work according to established criteria.

§123.46. Bio-related Technology Systems (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 9-12. The recommended prerequisite for this course is Technology Systems.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student describes how a systems model can be used to describe bio-related technology activities. The student is expected to:

(A) apply the universal systems model to bio-related technology activities;

(B) identify the inputs, processes, outputs, and feedback associated with bio-related technology systems; and

(C) describe how technological systems interact to achieve common goals.

(2) The student applies bio-related technology to meet practical objectives. The student is expected to:

(A) describe how bio-related technology can be used to solve individual or community problems;

(B) describe the factors that affect the purchase and use of bio-related technology;

(C) identify and describe the roles of bio-related technology in business and industry; and

(D) distinguish between the bio-related technology systems, such as ergonomic design, health technology, waste management, fuels and chemicals, and plant production.

(3) The student designs a bio-related technology product or system using appropriate design processes and techniques. The student is expected to:

(A) develop or improve a bio-related technology product or service that meets a specified need; and

(B) identify areas where quality, reliability, and safety can be designed into bio-related technology products or services.

(4) The student investigates emerging and innovative bio-related technologies. The student is expected to:

(A) report on emerging and innovative bio-related technologies; and

(B) conduct research and experimentation in bio-related technology.

(5) The student describes quality and how it is measured in bio-related technology. The student is expected to:

(A) describe different quality control applications in bio-related technology; and

(B) apply continuous quality improvement techniques to bio-related technology activities.

(6) The student produces bio-related technology products or services using the appropriate tools, equipment, machines, materials, and technical processes. The student is expected to:

(A) describe the mechanical, chemical, and physical characteristics of bio-related technology materials;

(B) describe the processes used in bio-related technology, such as propagating, growing, maintaining, harvesting, adapting, treating, and converting; and

(C) use a variety of tools, equipment, machines, and materials to produce bio-related technology products and services.

(7) The student works safely with bio-related technology. The student is expected to:

(A) master relevant safety tests;

(B) follow safety manuals, instructions, and requirements;

(C) identify and classify hazardous materials and wastes; and

(D) dispose of hazardous materials and wastes appropriately.

(8) The student describes the importance of maintenance in bio-related technology. The student is expected to:

(A) handle and store tools and materials correctly;

(B) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and

(C) describe the results of negligent or improper maintenance.

(9) The student manages a bio-related technology project or system. The student is expected to:

(A) develop a plan for completing a bio-related technology project; and

(B) participate in the organization and operation of a real or simulated bio-related technology project.

(10) The student applies the appropriate codes, laws, standards, or regulations related to bio-related technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and patents. The student is expected to:

(A) describe the importance of codes, laws, standards, or regulations;

(B) identify areas where codes, laws, standards, or regulations may be required; and

(C) follow the appropriate codes, laws, standards, or regulations.

(11) The student describes the intended and unintended effects of technological solutions. The student is expected to:

(A) use an assessment strategy to determine the risks and benefits of developments in bio-related technology;

(B) describe how technology has affected individuals, societies, cultures, economies, and environments; and

(C) discuss the international effects of bio-related technology.

(12) The student identifies the factors that influence the evolution of bio-related technology. The student is expected to:

(A) describe how changes in bio-related technology affect business and industry;

(B) describe how the development and use of bio-related technology are influenced by past events;

(C) describe change and the factors that affect the adoption or rejection of bio-related technology; and

(D) describe how and why technology evolves.

(13) The student solves problems, thinks critically, and makes decisions related to bio-related technology. The student is expected to:

(A) develop or improve a product or service by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technological solutions.

(14) The student identifies the factors that influence the cost of producing bio-related technology goods and services. The student is expected to:

(A) develop a budget for a bio-related technology project; and

(B) determine the most effective strategies to minimize costs.

(15) The student applies his/her communication, mathematics, and science knowledge and skills to bio-related technology. The student is expected to:

(A) use written, verbal, and visual communication techniques consistent with industry standards;

(B) use mathematics concepts in bio-related technology;

(C) identify and apply science principles used in bio-related technology; and

(D) use the appropriate units of measure.

(16) The student describes basic product and service marketing processes and techniques. The student is expected to:

(A) prepare a marketing plan for a(n) idea, product, or service; and

(B) discuss the effect of customer satisfaction on the image of a product or company.

(17) The student investigates career opportunities, requirements, and expectations in bio-related technology. The student is expected to:

(A) identify an area of interest in bio-related technology and investigate its entry-level and advancement requirements and its growth potential; and

(B) describe the careers available in bio-related technology.

(18) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

(C) distinguish between the roles of team leaders and team members;

(D) identify characteristics of good leaders;

(E) identify employers' expectations and appropriate work habits;

(F) define discrimination, harassment, and equality;

(G) use time management techniques to develop and maintain work schedules and meet deadlines; and

(H) complete his/her work according to established criteria.

§123.47. Computer Applications (One Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills

in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student describes how the concept of a system can be used to describe computer activities. The student is expected to:

(A) apply the universal systems model to computer activities;

(B) identify the inputs, processes, outputs, and feedback associated with computer systems; and

(C) describe how the interaction of technical systems helps solve complex problems.

(2) The student selects the proper computer technology to meet specific objectives. The student is expected to:

(A) apply computer technology to individual or community problems;

(B) describe the factors that affect the purchase and use of computer products and services;

(C) distinguish between mainframe, workstation, personal, and other computer systems;

(D) identify and describe the roles of computer technology; and

(E) use computer technology to record, locate, analyze, present, and exchange information.

(3) The student uses computer applications to facilitate the design and development of products or services. The student is expected to:

(A) develop or improve a product or system that meets specified objectives;

(B) use desktop-publishing software to create a newsletter;

(C) use graphic software to create and modify images;

(D) use simulation software for research and development;

(E) use machining software to produce or simulate the production of products;

(F) simulate computer-aided manufacturing;

(G) use tool path verification software; and

(H) use computer-aided drafting and design (CADD) applications to produce project drawings.

(4) The student investigates emerging and innovative computer technologies. The student is expected to:

(A) report on emerging and innovative computer technologies; and

(B) conduct research and experimentation in computer technology.

(5) The student describes the importance of quality and how it is measured in computer technology. The student is expected to:

(A) describe and apply different quality control techniques in computer technology; and

(B) apply continuous quality improvement techniques to computer activities.

(6) The student develops products or services using the appropriate computer technology. The student is expected to:

(A) describe the properties and characteristics of computer-related hardware and software;

(B) identify, select, and sequence the proper computer resources to complete a project;

(C) describe the processes used in computer technology; and

(D) use a variety of computer resources to complete a project.

(7) The student works safely with computer technology. The student is expected to:

(A) master relevant safety tests;

(B) follow safety manuals, instructions, and requirements;

(C) identify and classify hazardous materials and wastes; and

(D) dispose of hazardous materials and wastes appropriately.

(8) The student describes the importance of maintenance of computer technology. The student is expected to:

(A) locate and perform selected maintenance procedures on computer-related tools, equipment, and machines;

(B) handle and store computer equipment and materials correctly; and

(C) describe the results of negligent or improper computer maintenance.

(9) The student manages a computer technology project. The student is expected to:

(A) participate in the organization and operation of a real or simulated computer project; and

(B) develop a plan for completing a project.

(10) The student applies the appropriate codes, laws, standards, or regulations related to computer technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), copyright, and software piracy. The student is expected to:

(A) describe the importance of codes, laws, standards, or regulations;

(B) identify areas where codes, laws, standards, or regulations may be required; and

(C) follow the appropriate codes, laws, standards, or regulations.

(11) The student describes the intended and unintended effects of technological solutions. The student is expected to:

(A) use an assessment strategy to determine the risks and benefits of technological developments in computer technology;

(B) describe how technology has affected individuals, societies, cultures, economies, and environments;

(C) discuss the international effects of the use of computer technology; and

(D) describe how and why technology evolves.

(12) The student describes how and why computer technology evolves. The student is expected to:

(A) describe how changes in computer technology affect business and industry;

(B) describe how the development and use of computer technology are influenced by past events;

(C) describe change and the factors that affect the adoption or rejection of computer technology; and

(D) describe the factors that encourage the evolution of technology.

(13) The student solves problems, thinks critically, and makes decisions related to computer technology. The student is expected to:

(A) develop or improve a product by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of computer technology.

(14) The student describes the factors that influence the cost of producing products and services with computer technology. The student is expected to:

(A) develop a budget for a computer project;

(B) determine the most effective strategies to minimize costs; and

(C) identify the financial factors associated with starting and operating computer enterprises.

(15) The student applies his/her communication, mathematics, and science knowledge and skills with computer technology. The student is expected to:

(A) prepare technical reports and presentations;

(B) use binary and hexadecimal numbering systems; and

(C) identify and apply science principles used in computer technology.

(16) The student describes how basic marketing processes and procedures can be improved using computer technology. The student is expected to:

(A) prepare a marketing plan for a(n) idea, product, or service; and

(B) discuss the effect of customer satisfaction on the image of a product or company.

(17) The student investigates career opportunities, requirements, and expectations in computer technology. The student is expected to:

(A) identify an area of interest in computer technology and investigate its entry-level and advancement requirements and its growth potential; and

(B) describe a variety of careers available in computer technology.

(18) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

(C) distinguish between the roles of team leaders and team members;

(D) identify characteristics of good leaders;

(E) identify employers' expectations and appropriate work habits;

(F) define discrimination, harassment, and equality;

(G) use time management techniques to develop and maintain work schedules and meet deadlines; and

(H) complete his/her work according to established criteria.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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TITLE 19. EDUCATION

Part II. Texas Education Agency

Chapter 123. Texas Essential Knowledge and Skills for Technology Education/Industrial Technology Education

Subchapter E. Technical, High School

19 TAC §§123.61–123.68

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§123.61. Implementation of Texas Essential Knowledge and Skills for Technology Education/Industrial Technology Education, Technical, High School.

The provisions of Chapter 123, Subchapters C-G, shall supersede §75.85 of this title (relating to Industrial Technology Education) beginning September 1, 1998.

§123.62. Architectural Graphics (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 10-12. The recommended prerequisite for this course is Communication Systems.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student applies architectural graphics technology to practical problems. The student is expected to:

(A) apply architectural graphics technology to individual and community problems;

(B) describe the factors that affect the use of architectural graphics products and services; and

(C) identify and describe the roles of architectural graphics in business and industry.

(2) The student uses the appropriate architectural graphic design processes and techniques to develop a variety of architectural drawings. The student is expected to:

(A) develop or improve architectural drawings that conform to industry standards; and

(B) identify areas where the quality and reliability of communication can be improved using architectural graphics technology.

(3) The student investigates emerging and innovative architectural graphic technologies. The student is expected to:

(A) report on emerging and innovative architectural graphic technologies; and

(B) describe the advantages and disadvantages of changes in architectural graphic technology.

(4) The student describes quality and how it is measured in architectural graphics. The student is expected to:

(A) use different quality control applications in architectural graphics; and

(B) apply continuous quality improvement techniques to the production of architectural drawings.

(5) The student produces a variety of architectural drawings using the appropriate tools, equipment, machines, materials, and processes. The student is expected to:

(A) describe the tools, equipment, machines, materials, and processes used in architectural graphic communication; and

(B) use a variety of architectural graphics tools, equipment, and machines (traditional and computer-based) to produce drawings or models.

(6) The student works safely with architectural graphics technology. The student is expected to:

(A) master relevant safety tests;

(B) follow safety manuals, instructions, and requirements;

(C) identify and classify hazardous materials and wastes; and

(D) dispose of hazardous materials and wastes appropriately.

(7) The student demonstrates proper maintenance of architectural graphics tools, equipment, and machines. The student is expected to:

(A) handle and store tools and materials correctly;

(B) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and

(C) determine when items may require service or replacement.

(8) The student manages an architectural graphics technology project. The student is expected to:

(A) develop a plan for completing an architectural graphics technology project;

(B) participate in the organization and operation of a real or simulated architectural graphics project; and

(C) determine the resources needed to complete a project.

(9) The student applies the appropriate codes, laws, standards, or regulations related to architectural graphics technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:

(A) identify areas where codes, laws, standards, or regulations may be required;

(B) follow the appropriate codes, laws, standards, or regulations; and

(C) locate and use the standards and conventions used in the architectural graphics industry.

(10) The student solves problems, thinks critically, and makes decisions related to architectural graphics. The student is expected to:

(A) develop or improve a product by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technological solutions.

(11) The student describes the factors that influence the cost of producing architectural graphics drawings. The student is expected to:

(A) develop a budget for architectural graphics project; and

(B) determine the most effective strategies to minimize costs.

(12) The student applies his/her communication, mathematics, and science knowledge and skills to architectural graphics activities. The student is expected to:

(A) use written, verbal, and visual communication techniques consistent with industry standards;

(B) use mathematics concepts in architectural graphics technology;

(C) identify and apply science principles used in architectural graphics technology; and

(D) use the appropriate scales for measuring.

(13) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

(C) distinguish between the roles of team leaders and team members;

(D) identify characteristics of good leaders;

(E) identify employers' expectations and appropriate work habits;

(F) define discrimination, harassment, and equality;

(G) use time management techniques to develop and maintain work schedules and meet deadlines; and

(H) complete his/her work according to established criteria.

§123.63. Engineering Graphics (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 10-12. The recommended prerequisite for this course is Communication Systems.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student applies engineering graphics technology to practical problems. The student is expected to:

(A) apply engineering graphics technology to communicate ideas;

(B) describe the factors that affect the use of engineering graphics items;

(C) identify and describe the roles of engineering graphics; and

(D) use engineering graphics to help visualize objects and conduct analyses.

(2) The student designs an item using appropriate engineering graphic design processes and techniques. The student is expected to:

(A) develop or improve an item using engineering graphics technology; and

(B) use traditional and concurrent engineering design processes.

(3) The student investigates emerging and innovative engineering graphic technologies. The student is expected to:

(A) report on emerging and innovative engineering graphic technologies; and

(B) describe the advantages and disadvantages of changes in engineering graphics technology.

(4) The student describes the importance of quality and how it is determined in engineering graphics. The student is expected to:

(A) describe different quality control applications in engineering graphics; and

(B) apply continuous quality improvement techniques to the design of an item.

(5) The student produces a variety of engineering drawings using the appropriate tools, equipment, machines, materials, and processes. The student is expected to:

(A) describe the tools, equipment, machines, materials, and processes used in engineering graphics; and

(B) use a variety of engineering graphics tools, equipment, and machines (traditional and computer-based) to produce drawings or models.

(6) The student works safely with engineering graphics technology. The student is expected to:

(A) master relevant safety tests;

(B) follow safety manuals, instructions, and requirements;

(C) identify and classify hazardous materials and wastes; and

(D) dispose of hazardous materials and wastes appropriately.

(7) The student demonstrates proper maintenance of engineering graphics tools and equipment. The student is expected to:

(A) handle and store tools and materials correctly;

(B) determine when items may require service or replacement; and

(C) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines.

(8) The student manages an engineering graphics technology project. The student is expected to:

(A) participate in the organization and operation of a real or simulated engineering graphics project;

(B) develop a plan for completing an engineering graphics project; and

(C) determine the resources needed to complete a project.

(9) The student applies the appropriate codes, laws, standards, or regulations related to engineering graphics technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:

(A) describe the importance of codes, laws, standards, or regulations;

(B) identify areas where codes, laws, standards, or regulations may be required; and

(C) follow the appropriate codes, laws, standards, or regulations.

(10) The student solves problems, thinks critically, and makes decisions related to engineering graphics. The student is expected to:

(A) develop or improve a product by following an engineering design problem-solving process;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions;

(C) apply decision-making techniques to the selection of technological solutions; and

(D) evaluate proposed solutions to problems.

(11) The student describes the factors that influence the cost of producing engineering graphic drawings. The student is expected to:

(A) develop a budget for an engineering graphics project; and

(B) determine the most effective strategies to minimize costs.

(12) The student applies his/her communication, mathematics, and science knowledge and skills to engineering graphics activities. The student is expected to:

(A) use written, verbal, and visual communication techniques consistent with industry standards;

(B) use mathematics concepts when producing drawings;

(C) identify and apply science principles used in engineering graphics; and

(D) use the appropriate scales for measuring.

(13) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

- (C) distinguish between the roles of team leaders and team members;
- (D) identify characteristics of good leaders;
- (E) identify employers' expectations and appropriate work habits;
- (F) define discrimination, harassment, and equality;
- (G) use time management techniques to develop and maintain work schedules and meet deadlines; and
- (H) complete his/her work according to established criteria.

§123.64. Communication Graphics (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 10-12. The recommended prerequisite for this course is Communication Systems.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student applies communication graphics technology to practical problems. The student is expected to:

- (A) apply communication graphics technology to individual and community problems;
- (B) describe the factors that affect the use of communication graphics products and services; and
- (C) identify and describe the roles of communication graphics in business and industry.

(2) The student uses the appropriate communication graphic design processes and techniques to develop a variety of communication products. The student is expected to:

- (A) develop or improve communication products that conform to industry standards; and
- (B) identify areas where the quality and reliability of communication can be improved using communication graphics technology.

(3) The student investigates emerging and innovative communication graphic technologies. The student is expected to:

- (A) report on emerging and innovative communication graphic technologies; and
- (B) describe the advantages and disadvantages of changes in communication graphics.

(4) The student describes quality and how it is measured in communication graphics. The student is expected to:

- (A) use different quality control applications in communication graphics; and
- (B) apply continuous quality improvement techniques to the production of communication products.

(5) The student produces a variety of communication products using the appropriate tools, equipment, machines, materials, and processes. The student is expected to:

- (A) describe the tools, equipment, machines, materials, and processes used in communication graphics; and
- (B) use a variety of communication graphics tools, equipment, and machines (traditional and computer-based) to produce communication products.

(6) The student works safely with .097TD-309(graph-)JTJfl-ts.ics technology.

- (A) master relevant safety tests;

(C) locate and use the standards and conventions used in the communication graphics industry.

(10) The student solves problems, thinks critically, and makes decisions related to communication graphics. The student is expected to:

(A) develop or improve a product by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technological solutions.

(11) The student describes the factors that influence the cost of producing communication graphics products. The student is expected to:

(A) develop a budget for a communication graphics project; and

(B) determine the most effective strategies to minimize costs.

(12) The student applies his/her communication, mathematics, and science knowledge and skills to communication graphics activities. The student is expected to:

(A) use written, verbal, and visual communication techniques consistent with industry standards;

(B) use mathematics concepts in communication graphics technology;

(C) identify and apply science principles used in communication graphics technology; and

(D) use the appropriate scales for measuring.

(13) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

(C) distinguish between the roles of team leaders and team members;

(D) identify characteristics of good leaders;

(E) identify employers' expectations and appropriate work habits;

(F) define discrimination, harassment, and equality;

(G) use time management techniques to develop and maintain work schedules and meet deadlines; and

(H) complete his/her work according to established criteria.

§123.65. Manufacturing Technology (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 10-12. The recommended prerequisite for this course is Manufacturing Systems.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and

assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student selects and uses the appropriate resources to complete complex manufacturing tasks. The student is expected to:

(A) identify a problem and determine the appropriate resources needed to solve the problem; and

(B) describe the factors that affect the purchase and use of manufactured items.

(2) The student improves or modifies a product utilizing designated design processes and techniques. The student is expected to:

(A) use specified design process and techniques to develop and communicate his/her ideas; and

(B) develop or improve a product or system that solves a practical problem.

(3) The student investigates emerging and innovative applications of manufacturing technology. The student is expected to:

(A) use emerging and innovative manufacturing technologies to produce products; and

(B) conduct research and experimentation in manufacturing technology to determine the effectiveness of new technologies.

(4) The student describes quality and how it is measured in manufacturing. The student is expected to:

(A) produce items that meet a specified level of quality;

(B) recommend where and how the quality of an item can be improved; and

(C) explain the factors that affect the quality of products.

(5) The student uses advanced tools, equipment, machines, materials, and technical processes to complete complex projects. The student is expected to:

(A) describe the chemical, mechanical, and physical properties of manufacturing materials;

(B) develop advanced skills related to materials processing in manufacturing;

(C) use a variety of tools, equipment, and machines to manufacture complex products; and

(D) manufacture items that require advanced knowledge and skill.

(6) The student works safely with manufacturing technology. The student is expected to:

(A) master relevant safety tests;

(B) follow safety manuals, instructions, and requirements;

(C) identify and classify hazardous materials and wastes correctly;

(D) dispose of hazardous materials and wastes appropriately; and

(E) recommend improvements in safety procedures.

(7) The student performs basic scheduled maintenance on machines and equipment. The student is expected to:

(A) handle and store tools and materials correctly;

(B) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and

(C) develop a maintenance plan for selected machines and equipment.

(8) The student manages a complete manufacturing project. The student is expected to:

(A) develop a plan for completing a manufacturing technology project;

(B) identify and describe the resources required to complete a project; and

(C) develop a timeline for completing a project.

(9) The student follows the appropriate codes, laws, standards, or regulations related to a research and development project, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:

(A) identify areas where codes, laws, standards, or regulations may be required;

(B) locate the appropriate codes, laws, standards, or regulations; and

(C) interpret and follow the appropriate codes, laws, standards, or regulations.

(10) The student solves problems, thinks critically, and makes decisions related to manufacturing technology. The student is expected to:

(A) develop or improve a product by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technological solutions.

(11) The student determines the cost of a product being manufactured. The student is expected to:

(A) develop a budget for manufacturing a product; and

(B) determine the most effective strategies to minimize costs.

(12) The student applies his/her communication, mathematics, and science knowledge and skills to manufacturing activities. The student is expected to:

(A) write technical reports;

(B) make technical presentations to groups of individuals;

(C) identify and use mathematics concepts in manufacturing technology; and

(D) identify and apply science principles used in manufacturing technology.

(13) The student identifies and practices appropriate employability skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

(C) distinguish between the roles of team leaders and team members;

(D) identify characteristics of good leaders;

(E) identify employers' expectations and appropriate work habits;

(F) define discrimination, harassment, and equality;

(G) use time management techniques to develop and maintain work schedules and meet deadlines; and

(H) complete his/her work according to established criteria.

§123.66. Architectural Construction (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 10-12. The recommended prerequisite for this course is Construction Systems.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student selects and uses the appropriate resources to complete architectural construction tasks. The student is expected to:

(A) apply architectural construction technology to individual or local problems;

(B) identify a problem and determine the appropriate resources needed to solve the problem; and

(C) describe the factors that affect the purchase and use of buildings.

(2) The student designs or modifies a structure using designated design processes and techniques. The student is expected to:

(A) develop or improve a building design that meets a specified need; and

(B) use specified design processes to develop and communicate his/her ideas.

(3) The student investigates emerging and innovative architectural construction technologies. The student is expected to:

(A) report on emerging and innovative architectural construction technologies; and

(B) conduct research and experimentation in architectural construction technology to determine its effectiveness.

(4) The student describes quality and how it is measured in architectural construction. The student is expected to:

(A) construct items that meet a specified level of quality;

(B) recommend where and how the quality of a building can be improved; and

(C) explain the factors that affect the quality of buildings.

(5) The student constructs buildings using the appropriate tools, equipment, machines, materials and technical processes. The student is expected to:

(A) describe the chemical, mechanical and physical properties and standard units of measure of architectural construction materials, such as concrete, masonry, and metals;

(B) describe the processes used in architectural construction;

(C) use a variety of tools, equipment, and machines to construct buildings; and

(D) construct a building or model of a building.

(6) The student works safely with architectural construction technology. The student is expected to:

(A) master relevant safety tests;

(B) follow safety manuals, instructions, and requirements;

(C) identify and classify hazardous materials and wastes correctly;

(D) dispose of hazardous materials and wastes appropriately; and

(E) recommend improvements in safety procedures.

(7) The student performs basic maintenance on selected construction equipment and machines. The student is expected to:

(A) handle and store tools and materials correctly;

(B) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and

(C) develop a maintenance plan for selected machines and equipment.

(8) The student manages an architectural construction technology project. The student is expected to:

(A) develop a plan for completing an architectural construction technology project;

(B) identify and describe the resources required to complete a construction project; and

(C) develop a timeline for completing a project.

(9) The student follows the appropriate codes, laws, standards, or regulations related to architectural construction technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), private industry, and line weights. The student is expected to:

(A) identify areas where codes, laws, standards, or regulations may be required;

(B) locate the appropriate codes, laws, standards, or regulations; and

(C) interpret and follow the appropriate codes, laws, standards, or regulations.

(10) The student solves problems, thinks critically, and makes decisions related to architectural construction. The student is expected to:

(A) develop or improve a building or structure by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technological solutions.

(11) The student determines the cost of constructing a building. The student is expected to:

(A) develop a budget for an architectural construction project; and

(B) determine the most effective strategies to minimize costs.

(12) The student applies his/her communication, mathematics, and science knowledge and skills to architectural construction activities. The student is expected to:

(A) write technical reports;

(B) make technical presentations to groups of individuals;

(C) identify and use mathematics concepts in architectural construction technology; and

(D) identify and apply science principles used in architectural construction technology.

(13) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

- (A) describe how teams function;
- (B) use teamwork to solve problems;
- (C) distinguish between the roles of team leaders and team members;
- (D) identify characteristics of good leaders;
- (E) identify employers' expectations and appropriate work habits;
- (F) define discrimination, harassment, and equality;
- (G) use time management techniques to develop and maintain work schedules and meet deadlines; and
- (H) complete his/her work according to established criteria.

§123.67. Electricity/Electronics Technology (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 10-12. The recommended prerequisite for this course is Energy, Power, and Transportation Systems.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student selects and uses the appropriate resources to solve electrical or electronic problems. The student is expected to:

- (A) apply electrical or electronic technology to individual or community problems; and
- (B) describe the factors that affect the purchase and use of electrical or electronic products.

(2) The student designs an electrical or electronic device using the appropriate design processes and techniques. The student is expected to:

- (A) develop or improve an electrical or electronic device that meets a specified need; and
- (B) use specified design processes and techniques to develop and communicate his/her ideas.

(3) The student investigates emerging and innovative electrical or electronic technologies. The student is expected to:

- (A) use emerging and innovative electrical or electronic technologies; and

(B) conduct research and experimentation in electrical or electronic technology to determine its effectiveness.

(4) The student describes quality and how it is measured in electricity and electronics. The student is expected to:

- (A) produce devices that meet a specified level of quality;
- (B) recommend where and how the quality of an item can be improved; and
- (C) explain the factors that affect the quality of products.

(5) The student builds electrical or electronic products or systems using the appropriate tools, equipment, machines, materials and technical processes. The student is expected to:

- (A) describe the electrical, mechanical and physical properties of electrical or electronic materials;
- (B) describe the processes used in electricity or electronics, such as conversion, control, transmission, and storage;
- (C) use a variety of electrical and electronic tools, equipment, and machines; and
- (D) construct an electrical or electronic item.

(6) The student works safely with tools, equipment, machines, and materials used in electrical or electronic technology. The student is expected to:

- (A) master relevant safety tests;
- (B) follow safety manuals, instructions, and requirements;
- (C) identify and classify hazardous materials and wastes;
- (D) dispose of hazardous materials and wastes appropriately; and
- (E) recommend improvements in safety procedures.

(7) The student demonstrates proper electrical or electronic equipment maintenance. The student is expected to:

- (A) handle and store tools and materials correctly;
- (B) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and
- (C) describe the results of negligent or improper maintenance.

(8) The student manages an electrical or electronic technology project or system. The student is expected to:

- (A) develop a plan for completing an electrical or electronic technology project;
- (B) identify and describe the resources required to complete a project; and
- (C) develop a timeline for completing a project.

(9) The student follows the appropriate codes, laws, standards, or regulations related to electrical or electronic technology, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing

Materials (ASTM), standard symbols, and line weights. The student is expected to:

(A) identify areas where codes, laws, standards, or regulations may be required;

(B) locate the appropriate codes, laws, standards, or regulations; and

(C) interpret and follow the appropriate codes, laws, standards, or regulations.

(10) The student solves problems, thinks critically, and makes decisions related to electrical or electronics technology. The student is expected to:

(A) develop or improve a product by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technological solutions.

(11) The student describes the factors that influence the cost of electronic technology. The student is expected to:

(A) develop a budget for electrical or electronic projects; and

(B) determine the most effective strategies to minimize costs.

(12) The student applies his/her communication, mathematics, and science knowledge and skills to electrical or electronic activities. The student is expected to:

(A) write technical reports;

(B) make technical presentations to groups of people;

(C) use mathematics concepts in electrical or electronic technology; and

(D) identify and apply science principles used in electrical or electronic technology.

(13) The student describes basic product marketing processes and techniques. The student is expected to:

(A) prepare a marketing plan for a(n) idea, product, or service; and

(B) discuss the effect of customer satisfaction on the image of a product or company.

(14) The student investigates career opportunities, requirements, and expectations in electrical or electronic technology. The student is expected to:

(A) identify an area of interest in electricity or electronics, and investigate its entry-level and advancement requirements and its growth potential; and

(B) describe the types of career opportunities available in electricity or electronics.

(15) The student identifies and practices teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

(C) distinguish between the roles of team leaders and team members;

(D) identify characteristics of good leaders;

(E) identify employers' expectations and appropriate work habits;

(F) define discrimination, harassment, and equality;

(G) use time management techniques to develop and maintain work schedules and meet deadlines; and

(H) complete his/her work according to established criteria.

§123.68. Computer Multimedia and Animation Technology (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 10-12. The recommended prerequisite for this course is a technology applications credit.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student selects and uses multimedia communication and animation technology to meet specific needs. The student is expected to:

(A) apply multimedia communication and animation technology to individual or community problems;

(B) describe the factors that affect the use and interpretation of communication products; and

(C) identify and describe the roles of communication, such as informing, persuading, and educating.

(2) The student designs multimedia communication and animation products using appropriate design processes and techniques. The student is expected to:

(A) develop or improve communication products that meet specified needs; and

(B) identify areas where quality can be designed into multimedia communication and animation products, services, and systems.

(3) The student investigates emerging and innovative multimedia communication and animation technologies. The student is expected to:

(A) report on emerging and innovative multimedia communication and animation technologies; and

(B) conduct research and experimentation in multimedia communication and animation technology to determine its effectiveness.

(4) The student describes quality and how it is measured in multimedia communication and animation technology. The student is expected to:

(A) produce items that meet a specified quality level;

(B) recommend how the quality of a product can be improved; and

(C) explain the factors that affect the quality of products.

(5) The student produces multimedia communication and animation products using the appropriate tools, equipment, machines, materials, and processes. The student is expected to:

(A) describe the characteristics and properties of multimedia communication and animation materials;

(B) describe the processes used in multimedia communication and animation systems;

(C) use a variety of tools, equipment, and machines; and

(D) produce communication items.

(6) The student works safely with multimedia communication and animation technology. The student is expected to:

(A) master relevant safety tests;

(B) follow safety manuals, instructions, and requirements;

(C) identify and classify hazardous materials and wastes correctly; and

(D) dispose of hazardous materials and wastes appropriately.

(7) The student demonstrates proper equipment maintenance in multimedia communication and animation technology. The student is expected to:

(A) handle and store tools, equipment, and materials properly; and

(B) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines.

(8) The student manages a multimedia communication and animation technology project. The student is expected to:

(A) develop a plan for completing a multimedia communication and animation project;

(B) identify and describe the resources required to complete a project; and

(C) develop a timeline for completing a project.

(9) The student follows the appropriate codes, laws, standards, or regulations related to communication technology, such as Occupational Safety and Health Administration (OSHA), National

Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:

(A) identify areas where codes, laws, standards, or regulations may be required;

(B) follow the appropriate codes, laws, standards, or regulations; and

(C) locate the appropriate codes, laws, standards, or regulations.

(10) The student demonstrates the ability to solve problems, think critically, and make decisions. The student is expected to:

(A) develop or improve a product by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques.

(11) The student determines the cost of producing multimedia communication and animation products. The student is expected to:

(A) develop a budget for a communication product; and

(B) determine the most effective strategies to minimize costs.

(12) The student applies communication, mathematics, and science knowledge and skills to communication activities. The student is expected to:

(A) use written, verbal, and visual communication techniques consistent with industry standards;

(B) use mathematics concepts in communication technology; and

(C) identify and apply science principles used in communication technology.

(13) The student describes the relationship between multimedia communication and marketing. The student is expected to:

(A) prepare a marketing plan for a(n) idea, product, or service using multimedia communication and animation techniques; and

(B) discuss the effect of customer satisfaction on the image of a product or company.

(14) The student describes the importance of teamwork, leadership, integrity, honesty, work habits, and organizational skills. The student is expected to:

(A) describe how teams function;

(B) use teamwork to solve problems;

(C) distinguish between the roles of team leaders and team members;

(D) identify characteristics of good leaders;

- (E) identify employers' expectations and appropriate work habits;
- (F) define discrimination, harassment, and equality;
- (G) use time management techniques to develop and maintain work schedules and meet deadlines; and
- (H) complete his/her work according to established criteria.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Subchapter F. Scientific, High School

19 TAC §§123.81–123.83

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§123.81. Implementation of Texas Essential Knowledge and Skills for Technology Education/Industrial Technology Education, Scientific, High School.

The provisions of Chapter 123, Subchapters C-G, shall supersede §75.85 of this title (relating to Industrial Technology Education) beginning September 1, 1998.

§123.82. Principles of Technology I (One Science Credit).

(a) General requirements. The prerequisites for this course are one course in science and Algebra I. To receive credit in science, students must meet the 40% laboratory and fieldwork requirement identified in §74.3(b)(2)(C) of this title (relating to Description of a Required Secondary Curriculum). This course is recommended for students in Grades 10-12.

(b) Introduction.

(1) Science is a way of learning about the natural world. Students should know how science has built a vast body of changing and increasing knowledge described by physical, mathematical, and conceptual models, and that science may not answer all questions.

(2) A system is a collection of cycles, structures, and processes that interact. Students should understand a whole in terms of its components and how these components relate to each other and to the whole. All systems have basic properties that can be described in terms of space, time, energy and matter. Change and constancy occur in systems and can be observed and measured as patterns. These patterns help to predict what will happen next and can change over time.

(3) Investigations are used to learn about the natural world through questioning, observing and drawing conclusions. Students should understand that certain types of questions can be answered by investigations, and that conclusions and models built from these investigations change as new observations are made. Models of objects and events are tools for understanding the natural world and can show how systems work. They have limitations and based on new discoveries are constantly being changed to more closely reflect the physical world.

(c) Knowledge and skills.

(1) The student uses a systems approach to investigate mechanical, fluid, electrical, and thermal systems. The student is expected to:

(A) apply the universal systems model to technological activities; and

(B) identify the inputs, processes, outputs, and feedback associated with each of the systems.

(2) The student works safely with mechanical, fluid, electrical, and thermal technology. The student is expected to:

(A) master relevant safety tests;

(B) follow safety manuals, instructions, and requirements; and

(C) make prudent choices in the conservation and use of resources and the disposal of materials.

(3) The student solves problems, thinks critically, and makes decisions related to technology. The student is expected to:

(A) use specified problem-solving strategies;

(B) apply critical-thinking strategies;

(C) apply decision-making techniques to the selection of technological solutions; and

(D) evaluate the impact of technology on scientific thought, society, and the environment.

(4) The student applies communication, science, and mathematics knowledge and skills to technological activities. The student is expected to:

(A) prepare technical reports and presentations;

(B) solve algebraic equations;

(C) solve problems in English and System International (SI) units; and

(D) perform unit conversions.

(5) The student knows the laws governing motion. The student is expected to:

(A) analyze examples of uniform and accelerated motion, including linear, projectile, and circular motion;

(B) generate and interpret graphs describing motion, including the use of real time technology;

(C) formulate the effects of forces on the motion of objects;

(D) develop and interpret a free-body diagram for force analysis; and

(E) identify and describe motion relative to different frames of reference.

(6) The student knows the concept of force. The student is expected to:

(A) apply examples of complex technological devices where force must be controlled, measured or applied;

(B) analyze the relationship among force, pressure, voltage and temperature;

(C) evaluate and predict what happens to an object when forces on it are balanced and when forces on it are unbalanced; and

(D) measure force in mechanical, fluid, electrical, and thermal systems.

(7) The student knows the concept of work. The student is expected to:

(A) relate mechanical, fluid, and electrical systems to force and movement; and

(B) identify and measure the effects of work done in mechanical, fluid and electrical systems.

(8) The student knows the concept of rate. The student is expected to:

(A) analyze rate in mechanical, fluid, electrical, and thermal systems; and

(B) measure, verify, and analyze rate in mechanical, fluid, electrical and thermal systems.

(9) The student knows the concept of resistance. The student is expected to:

(A) identify resistance in mechanical, fluid, electrical, and thermal energy systems;

(B) relate the principle of force divided by rate to resistance in each energy system; and

(C) measure, verify, and analyze resistance in mechanical, fluid, electrical, and thermal energy systems.

(10) The student knows the concept of energy. The student is expected to:

(A) identify the nature of energy;

(B) relate potential energy, kinetic energy and heat energy to the conservation of energy;

(C) distinguish between work and energy;

(D) measure, verify, and analyze energy in each system; and

(E) evaluate different methods of energy transfer that result in an increasing amount of disorder.

(11) The student knows the concept of power. The student is expected to:

(A) define power in mechanical, fluid, electrical and thermal systems; and

(B) relate the principle of work divided by time to each energy system.

(12) The student knows the concept of energy transformation. The student is expected to:

(A) observe and describe examples of kinetic and potential energy in mechanical, fluid, and electrical systems; and

(B) compare examples of energy transformations in mechanical, fluid, and electrical systems.

§123.83. *Principles of Technology II (One Science Credit).*

(a) General requirements. The prerequisite for this course is Principles of Technology I. To receive credit in science, students must meet the 40% laboratory and fieldwork requirement identified in §74.3(b)(2)(C) of this title (relating to Description of a Required Secondary Curriculum). This course is recommended for students in Grades 11-12.

(b) Introduction.

(1) Science is a way of learning about the natural world. Students should know how science has built a vast body of changing and increasing knowledge described by physical, mathematical, and conceptual models, and that science may not answer all questions.

(2) A system is a collection of cycles, structures, and processes that interact. Students should understand a whole in terms of its components and how these components relate to each other and to the whole. All systems have basic properties that can be described in terms of space, time, energy and matter. Change and constancy occur in systems and can be observed and measured as patterns. These patterns help to predict what will happen next and can change over time.

(3) Investigations are used to learn about the natural world through questioning, observing and drawing conclusions. Students should understand that certain types of questions can be answered by investigations, and that conclusions and models built from these investigations change as new observations are made. Models of objects and events are tools for understanding the natural world and can show how systems work. They have limitations and based on new discoveries are constantly being changed to more closely reflect the physical world.

(c) Knowledge and skills.

(1) The student uses a systems approach to investigate mechanical, fluid, electrical, and thermal systems. The student is expected to:

(A) apply the universal systems model to technological activities; and

(B) identify the inputs, processes, outputs, and feedback associated with each of the systems.

(2) The student works safely with mechanical, fluid, electrical, and thermal technology. The student is expected to:

(A) master relevant safety tests;

(B) follow safety manuals, instructions, and requirements;

(C) identify and classify hazardous materials and wastes; and

(D) dispose of hazardous materials and wastes appropriately.

(3) The student solves problems, thinks critically, and makes decisions related to technology. The student is expected to:

(A) use problem-solving strategies;

(B) apply critical-thinking strategies;

(C) apply decision-making techniques to the selection of technological solutions; and

(D) evaluate the impact of technology on scientific thought, society, and the environment.

(4) The student applies communication, science, and mathematics knowledge and skills to technological activities. The student is expected to:

(A) prepare technical reports and presentations;

(B) solve algebraic equations;

(C) solve problems in English and System International (SI) units; and

(D) perform unit conversions.

(5) The student knows the laws governing motion. The student is expected to:

(A) analyze examples of uniform and accelerated motion, including linear, projectile, and circular motion;

(B) evaluate the effects of forces on the motion of objects;

(C) develop and interpret a free-body diagram for force analysis; and

(D) analyze motion relative to different frames of reference.

(6) The student knows the concept of momentum. The student is expected to:

(A) identify linear and angular momentum; and

(B) relate the conservation of momentum to linear and angular motion.

(7) The student knows the concept of waves and vibrations. The student is expected to:

(A) identify and evaluate characteristics of wave motion; and

(B) demonstrate how waves transmit energy.

(8) The student knows the concept of energy conversion. The student is expected to:

(A) evaluate the purpose of energy converters;

(B) identify converters that change one form of energy to another; and

(C) evaluate the efficiency of converting energy from one form to another.

(9) The student knows the concept of energy transduction. The student is expected to:

(A) identify the function of a transducer;

(B) distinguish between an energy converter and a transducer; and

(C) identify transducers that change energy signals from one form to another.

(10) The student knows the concept of radiant energy. The student is expected to:

(A) describe radiation and cite examples;

(B) compare fission and fusion in terms of end products, energy, advantages, and availability; and

(C) compare and contrast different types of radioactive decay.

(11) The student knows the concept of light and optics. The student is expected to:

(A) identify characteristics of optical devices;

(B) analyze the characteristics of light including reflection, refraction, and interference; and

(C) interpret the effects of wave characteristics in daily applications, such as lasers and optics in industrial and medical technology.

(12) The student knows the concept of time constants. The student is expected to:

(A) define a time constant; and

(B) distinguish between a linear and non-linear increase and decrease of a variable with time.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

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Subchapter G. Research, High School

19 TAC §§123.91–123.93

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§123.91. Implementation of Texas Essential Knowledge and Skills for Technology Education/Industrial Technology Education, Research, High School.

The provisions of Chapter 123, Subchapters C-G, shall supersede §75.85 of this title (relating to Industrial Technology Education) beginning September 1, 1998.

§123.92. Research, Design, and Development - Independent Study (One-Half to One Credit).

(a) General requirements. The prerequisites for this course are two technology education courses in an approved coherent sequence. This course is recommended for students in Grades 11-12.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student uses a systems approach for conducting technological research, design, and development activities. The student is expected to:

(A) describe and use the scientific method, technological method, or universal systems model to conduct a research activity; and

(B) identify the inputs, processes, outputs, and feedback associated with research, design, and development activities.

(2) The student selects the appropriate technological resources to conduct research, design, and development activities. The student is expected to:

(A) apply technology to individual or community problems;

(B) describe the factors that affect the purchase and use of items;

(C) differentiate between, research, design, and development; and

(D) distinguish between adaptation, imitation, innovation, and invention.

(3) The student designs or improves a product using appropriate design processes and techniques. The student is expected to:

(A) develop or improve a product or service that meets a specified need;

(B) identify areas where quality, reliability, and safety can be designed into a product;

(C) describe the functions and methodologies used in basic and applied research; and

(D) develop a project portfolio that documents a research and development project.

(4) The student predicts the effects of emerging and innovative applications of technology. The student is expected to:

(A) report on emerging and innovative technologies; and

(B) describe the factors that influence the adoption of technology.

(5) The student builds products or systems using the appropriate technological resources. The student is expected to:

(A) describe the properties of selected materials, such as molecular structure, strength properties, and surface properties;

(B) safely and efficiently use a variety of tools, equipment, machines and materials; and

(C) build models, mockups, or prototypes.

(6) The student works safely with technology. The student is expected to:

(A) master relevant safety tests;

(B) follow safety manuals, instructions, and requirements; and

(C) identify and dispose of hazardous materials and wastes correctly.

(7) The student describes the importance of maintenance. The student is expected to:

(A) handle and store tools and materials correctly; and

(B) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines.

(8) The student manages a research and development project. The student is expected to:

(A) organize and complete a research and design project; and

(B) develop a timeline for the completion of a project.

(9) The student applies the appropriate codes, laws, standards, or regulations related to a research and development project, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), standard symbols, and line weights. The student is expected to:

(A) identify areas where codes, laws, standards, and regulations apply.

(A) develop or improve a product by following a problem-solving strategy;

(B) apply critical-thinking strategies to the analysis and evaluation of proposed technological solutions; and

(C) apply decision-making techniques to the selection of technological solutions.

(12) The student describes the costs associated with research and development activities. The student is expected to:

(A) develop a budget for a research and development project; and

(B) determine the most effective way to minimize project costs.

(13) The student applies his/her communication, mathematics, and science knowledge and skills to research and development projects. The student is expected to:

(A) use written, verbal, and visual communication techniques consistent with industry standards;

(B) use mathematics concepts; and

(C) identify and apply science principles used in his/her project.

(14) The student describes the relationships between marketing and research and development. The student is expected to:

(A) prepare a marketing plan for a(n) idea, product, or service; and

(B) discuss the effect of customer satisfaction on the image of a product or company.

§123.93. Problems and Solutions in Technology - Independent Study (One-Half to One Credit).

(a) General requirements. The prerequisites for this course are two technology education courses in an approved coherent sequence. This course is recommended for students in Grades 11-12.

(b) Introduction. In Technology Education, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

(c) Knowledge and skills.

(1) The student uses advanced tools, materials, processes, and procedures in bio-related technology, computer applications, construction, communications, manufacturing, or energy, power and transportation. The student is expected to:

(A) determine and use the appropriate technology needed to solve a problem or complete a task;

(B) evaluate the use of technology in a given situation; and

(C) describe the factors that influence the use of technology in a variety of situations.

(2) The student designs a product using appropriate design processes and techniques. The student is expected to:

(A) use an accepted design process to design an object or service;

(B) develop drawings, illustrations, or models; and

(C) establish design criteria and constraints.

(3) The student predicts the impacts of emerging and innovative applications of technology. The student is expected to:

(A) describe the emerging and innovative technologies being developed in a field; and

(B) identify the factors that may influence the adoption of emerging and innovative technologies.

(4) The student improves the quality of a product or service using different quality control techniques. The student is expected to:

(A) define quality;

(B) assess the quality of specific products and services; and

(C) determine how the quality of a product or service can be improved.

(5) The student recommends new ways to build products using different tools, equipment, machines, materials, and technical processes. The student is expected to:

(A) use a variety of tools, equipment, machines, materials, and processes to build products in a more efficient manner; and

(B) develop advanced technological skills.

(6) The student designs and builds safety devices required to complete different tasks. The student is expected to:

(A) recommend improvements to safety standards; and

(B) construct safety devices that allow for the safe completion of a task.

(7) The student performs advanced equipment maintenance. The student is expected to:

(A) handle and store tools and materials correctly;

(B) locate and perform manufacturers' maintenance procedures on selected tools, equipment, and machines; and

(C) describe the results of negligent or improper maintenance.

(8) The student develops a management plan for a project or activity. The student is expected to:

(A) identify and describe the steps required to complete a project;

(B) determine and acquire the resources needed to complete a project; and

(C) develop a timeline to complete a project.

(9) The student identifies and follows the appropriate codes, laws, standards, or regulations, such as Occupational Safety and Health Administration (OSHA), National Electrical Code (NEC), American Society for Testing Materials (ASTM), and standard symbols. The student is expected to:

(A) describe the importance of codes, laws, standards, or regulations;

(B) identify areas where codes, laws, standards, or regulations may be required; and

(C) interpret and follow the appropriate codes, laws, standards, or regulations.

(10) The student solves problems, thinks critically, and makes decisions related to technology. The student is expected to:

(A) use an established problem-solving strategy;

(B) evaluate multiple solutions to a single problem; and

(C) recommend and justify a course of action for solving a problem.

(11) The student suggests how the cost of a product or service can be reduced. The student is expected to:

(A) identify the factors that influence the cost of a product or service; and

(B) select materials or processes that will reduce the cost of producing the product or delivering the service.

(12) The student applies his/her communication, mathematics, and science knowledge and skills to technological activities. The student is expected to:

(A) write technical reports;

(B) deliver technical presentations to groups of individuals;

(C) identify and describe the mathematics concepts used in his/her projects; and

(D) identify and describe the science concepts used in his/her projects.

(13) The student predicts the marketability of an item. The student is expected to:

(A) determine the customer's expectations concerning a product or service;

(B) evaluate a product or service to determine if it will meet the customer's expectations; and

(C) deliver a product or service and assesses the customer's responses.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

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Chapter 124. Texas Essential Knowledge and Skills for Marketing Education

The Texas Education Agency (TEA) adopts new §§124.1, 124.2, 124.11-124.14, 124.21-124.25, 124.31- 124.33, 124.41-124.47, 124.61, and 124.62, concerning marketing education, with changes to the proposed text as published in the February 28, 1997, issue of the *Texas Register* (22 TexReg 2230). The new sections establish the essential knowledge and skills needed to perform one or more of the marketing functions such as selling, pricing, promoting, financing, product/service planning, purchasing, marketing information management, distribution, and risk management. The new sections are necessary to ensure that students throughout the state have access to the enrichment curricula. The provisions of these sections shall supersede §75.86 of this title (relating to Marketing Education) beginning September 1, 1998.

The Texas Education Code organizes the required curriculum into two types: the foundation curriculum and the enrichment curriculum. As specified in legislation, the essential knowledge and skills of the enrichment curriculum serve as guidelines to school districts in providing instruction. In doing so, some districts may incur costs for professional development and equipment. These potential costs cannot be estimated.

Members of the public expressed concern about adoption of a certificate of initial mastery. Neither the Texas essential knowledge and skills (TEKS) nor any other rule contains reference to, promotes, or establishes a certificate of initial mastery.

The following changes have been made since the sections were proposed.

Numerous editorial changes were made throughout the sections for clarification and simplification.

Since filing of the proposed sections, legal counsel has advised that since the sections serve as guidelines for instruction, language containing or implying mandates on school districts should be stricken or replaced with more permissive language where necessary. The term "shall" that appeared in statements regarding the date of implementation of the provisions for each subchapter was replaced with more permissive language. Language specifying the amount of credit to be awarded for successful completion of a course was deleted.

The term "capstone" in career and technology education courses has been replaced with the term "independent study" to clarify language. The career and technology education courses consist of an in-depth study of a business/industry that is of particular interest to a student.

Several individuals who testified at the public hearing held on March 4, 1997, stated that the TEKS for career and technology education contain references to the skills and competencies identified by the Secretary's Commission on Achieving Necessary Skills (SCANS) and thus reflect federal influence. TEA staff has carefully reviewed the TEKS for evidence of SCANS skills and competencies. The sections being adopted do not contain specific references to SCANS; however, the sections do contain skills and competencies that are among those recommended by the commission. The curriculum writing teams, members of the State Board of Education (SBOE) Review Committee, and others who had suggested strengthening the TEKS drafts expressed a strong belief that some skills and competencies identified by the SCANS commission are an essential part of an effective curriculum.

The following changes have been made to further clarify the student expectation statements.

In subsection (c)(2)(A) of §§124.2, 124.14, and 124.32, language has been changed to read "understand the ramifications of business conduct." This change also has been made in subsection (c)(1)(C) of §§124.13, 124.43, 124.44, 124.46, and 124.47.

In subsection (c)(2)(B) of §§124.2, 124.14, and 124.32, language has been changed to read "identify ways that businesses contribute to their community." This change also has been made in §124.25(c)(1)(B) and §124.45(c)(1)(D).

In subsection (c)(5)(A) of §124.2 (relating to Marketing Yourself (One-Half Credit)), language has been changed to read "apply math concepts in a potential employment situation (such as an employment market analysis)."

In subsection (c)(1)(C) of §124.12 (relating to Entrepreneurship (One-Half to One Credit)), language has been changed to read "explain the concept of personal responsibility."

In subsection (c)(1)(C) of §124.42 (relating to Fashion Marketing (One-Half to Three Credits)), language has been changed to read "explain the implications of business conduct using fashion industry examples."

The word "planning," which was inadvertently omitted, has been added to subsection (c)(12) of §124.46 (relating to Services Marketing (One-Half to Three Credits)) to clarify that students know how to plan marketing services.

The following comments have been received regarding adoption of the new sections. The comments are organized by subchapter and section.

Subchapter E. Specialized, High School.

§124.46. Services Marketing (One-Half to Three Credits).

Issue: performance descriptions.

Comment. An individual commented that the word "planning" be added to §124.46(c)(12) to read, "The student knows the elements and processes of services planning."

Agency Response. The TEA agrees with the comment. Language has been changed in §124.46(c)(12).

General Comments.

Comment. Clear Creek Independent School District commented that the content and grade level in the TEKS for marketing education are correct. The strengths of the TEKS for marketing education are their sequencing and repetition.

Issue: indicating change in concept areas.

Comment. An individual recommended that the document include descriptors such as labels to provide some form of division between the concept areas. The addition of these labels will ensure that each knowledge and skills statement is within the context of its corresponding basic understanding.

Agency Response. The distinction of the foundation and functional areas of the marketing education curriculum are easier to see in the two-column format adopted by the SBOE; therefore, the descriptors or labels were not needed.

Comment. An individual commented on how the marketing education program had helped her daughter through trying times by allowing her to be more productive, by instilling in her professional responsibility, and by providing her with hands-on experience in the free enterprise system and the free market system. The individual urged adoption of the TEKS for marketing education.

Subchapter A. Introductory, High School

19 TAC §124.1, §124.2

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§124.1. Implementation of Texas Essential Knowledge and Skills for Marketing Education, Introductory, High School.

The provisions of this chapter shall supersede §75.86 of this title (relating to Marketing Education) beginning September 1, 1998.

§124.2. Marketing Yourself (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles of business and marketing, the concepts of economics and free enterprise, and the understanding of human resource skills that an effective marketer must possess provide the foundation for the study of marketing. Understanding these concepts allows students to know the interrelationship between business and marketing.

(c) Knowledge and skills.

(1) The student knows the importance of marketing. The student is expected to:

(A) explain the marketing concept as it relates to the job-seeking process; and

(B) explain the marketing concept as it relates to career planning.

(2) The student knows the relationship of business and society. The student is expected to:

(A) understand the ramifications of business conduct; and

(B) identify ways that businesses contribute to their community.

(3) The student knows that the United States free enterprise system offers entrepreneurial opportunities. The student is expected to:

(A) research employment opportunities in small businesses; and

(B) explain the importance of the U.S. free enterprise system in encouraging opportunities for entrepreneurial ventures.

(4) As a lifelong learner, the student knows that careers are ever changing and require continual self-assessment, research, and preparation to develop and implement responsible decisions. The student is expected to:

(A) collect and analyze self-assessment information, including interests, aptitudes, and personal traits;

(B) research and assess employment trends in marketing careers;

(C) demonstrate job interviewing skills;

(D) analyze ways of evaluating job interview effectiveness; and

(E) develop a personal resume.

(5) The student knows the importance of math applications in the workplace. The student is expected to:

(A) apply math concepts in a potential employment situation (such as an employment market analysis);

(B) make accurate estimates and projections; and

(C) interpret data found in charts and graphs.

(6) The student integrates listening, reading, speaking, writing, and nonverbal communication skills effectively. The student is expected to:

(A) communicate effectively in a business context;

(B) develop effective business correspondence (such as business letters and resumes) using correct grammar, spelling, punctuation, and form;

(C) interpret and use a variety of nonverbal messages; and

(D) use technology in receiving and sending business communication.

(7) The student knows how to use self-development techniques and interpersonal skills. The student is expected to:

(A) identify and practice effective interpersonal and team-building skills; and

(B) participate in leadership and career development activities (such as DECA and local chambers of commerce).

(8) The student knows that management is the process of achieving goals through the use of human resources, technology, and material resources. The student is expected to:

(A) explain management functions;

(B) describe responsibilities for each management level; and

(C) compare management styles.

(9) The student knows that information technology is an effective business tool. The student is expected to:

(A) research emerging technologies; and

(B) select and use the tools of information technology.

(10) The student knows the impact and value of diversity in the workplace. The student is expected to:

(A) identify the effect of languages other than English in the workplace; and

(B) explain how diversity affects the workplace.

(11) The student knows that an employee needs a working knowledge of economic concepts. The student is expected to:

(A) identify economic wants and needs;

(B) compare and contrast how economic situations influence job-seeking strategies; and

(C) analyze the link between employee responsibility and profit.

(12) The student knows how job applicants use the selling process to present themselves to prospective employers. The student is expected to:

(A) discuss the role of selling in the job-seeking process; and

(B) develop and apply a strategy for determining employer needs and wants.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Subchapter B. Exploratory, High School

19 TAC §§124.11–124.14

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§124.11. Implementation of Texas Essential Knowledge and Skills for Marketing Education, Exploratory, High School.

The provisions of this chapter shall supersede §75.86 of this title (relating to Marketing Education) beginning September 1, 1998.

§124.12. Entrepreneurship (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles of business and marketing, the concepts of economics and free enterprise, and the understanding of human resource skills that an effective marketer must possess provide the foundation for the study of entrepreneurship. Understanding these concepts allows students to know the interrelationship between business and marketing.

(c) Knowledge and skills.

(1) The student knows business concepts and how business satisfies economic needs. The student is expected to:

(A) categorize business activities as production, marketing, management, or finance;

(B) describe the interdependence each business activity has with marketing;

(C) explain the concept of personal responsibility;

(D) explain the impact of an international economy on entrepreneurial ventures;

(E) describe advantages and disadvantages of various forms of business ownership; and

(F) describe advantages and disadvantages of buying an existing business.

(2) The student knows the importance of marketing as well as the functions of marketing. The student is expected to:

(A) explain the marketing concept;

(B) explain how each component of the marketing mix contributes to successful entrepreneurial ventures;

(C) describe advantages and disadvantages of market segmentation and mass marketing; and

(D) develop marketing strategies for a proposed marketing plan.

(3) The student knows that successful entrepreneurial ventures depend on preliminary analysis and planning. The student is expected to:

(A) demonstrate an understanding of components of a business plan; and

(B) develop, explain, and defend a plan for a new business.

(4) The student applies math concepts in entrepreneurship. The student is expected to:

(A) perform calculations involving money, time, space, materials, and data;

(B) interpret charts and graphs to make informed decisions;

(C) determine price, profit, cost, and break-even point; and

(D) read, calculate, and interpret data found in financial reports.

(5) The student knows how to use self-development techniques and interpersonal skills to accomplish business objectives. The student is expected to:

(A) identify and practice effective interpersonal and team-building skills; and

(B) participate in leadership and career development activities (such as DECA and local chambers of commerce).

(6) The student knows that management is the process of achieving goals through the use of human resources, technology, and material resources. The student is expected to:

(A) identify levels of management; and

(B) compare and contrast management styles.

(7) The student knows that entrepreneurship requires continual self-assessment, research, and preparation. The student is expected to:

(A) collect and analyze self-assessment information, including interests, aptitudes, and personal traits; and

(B) research and assess opportunities for business ventures.

(8) The student knows the impact and value of diversity. The student is expected to:

(A) identify the effect of languages other than English on an entrepreneurial venture;

(B) explain how cultural diversity affects entrepreneurship; and

(C) identify how diversity affects entrepreneurship.

(9) The student knows that entrepreneurial opportunities begin with a working knowledge of economic concepts. The student is expected to:

(A) identify economic wants and needs;

(B) use information about supply and demand to predict their influence on entrepreneurial activities;

(C) explain the role productivity plays in an economy;
(D) describe competition and its relationship to private enterprise and entrepreneurship;

(E) analyze competitive strengths and weaknesses of an entrepreneurial venture; and

(F) investigate laws and regulations that impact entrepreneurial and ongoing businesses.

(10) The student knows that international economic factors affect business planning. The student is expected to:

(A) identify strategies for entering international markets; and

(B) compare and contrast how situations can influence the entrepreneur's selection of strategies.

(11) The student knows that distribution involves activities associated with the physical movement or transfer of ownership of products from producer to consumer. The student is expected to:

(A) identify activities associated with transportation, storage, product handling, and inventory control;

(B) explain how distribution can add value to goods, services, and ideas; and

(C) determine costs associated with distribution.

(12) The student knows that financial planning is necessary for the entrepreneur's success and solvency. The student is expected to:

(A) explain the impact of financial planning on entrepreneurial decisions;

(B) research financial options available to meet entrepreneurial needs; and

(C) identify the financial impact of changes in economic conditions.

(13) The student knows that offering consumer credit encourages the sale of goods, services, and ideas. The student is expected to:

(A) identify types of consumer credit;

(B) recommend types of consumer credit a business might offer; and

(C) develop a credit policy.

(14) The student knows that marketing research is a specific inquiry to solve a problem. The student is expected to:

(A) identify benefits and limitations of marketing research;

(B) identify components of the marketing research process; and

(C) explain how to use the marketing research process in order to identify potential markets, analyze demand, forecast sales, and make other decisions.

(15) The student knows that pricing has policies, objectives, and strategies. The student is expected to:

(A) develop and analyze pricing objectives;

(B) compare and contrast pricing policies for an entrepreneurial venture; and

(C) recommend appropriate pricing strategies.

(16) The student knows the effects of credit on price and profit. The student is expected to:

(A) explain risks and benefits to entrepreneurs when accepting and extending credit; and

(B) describe how credit affects profit and the negotiated price.

(17) The student knows the importance of managing the pricing structure. The student is expected to:

(A) communicate the differences among pricing structures for goods, services, and ideas; and

(B) develop a pricing structure for an entrepreneurial venture.

(18) The student knows elements and processes of product planning. The student is expected to:

(A) describe stages of new-product planning;

(B) define the term "product mix;" and

(C) identify stages of the product life cycle for new or existing products.

(19) The student knows the process for development, implementation, and evaluation of a promotional plan. The student is expected to:

(A) explain the concept of promotional mix;

(B) describe the interrelationship of visual merchandising, public relations and publicity, personal selling, and sales promotion with advertising; and

(C) apply evaluation strategies to determine promotional campaign effectiveness.

(20) The student knows that purchasing usually occurs in a continuous cycle. The student is expected to:

(A) explain how entrepreneurs identify needs;

(B) describe the process of selecting suppliers and sources; and

(C) analyze and discuss selection of goods and services based on a new business' operational needs.

(21) The student knows that entrepreneurial risk is the possibility of loss or failure. The student is expected to:

(A) categorize business risks as human, natural, and economic;

(B) classify business risks as pure or speculative, controllable or uncontrollable, and/or insurable or noninsurable;

(C) explain security precautions, as well as health, safety, and worker welfare regulations; and

(D) analyze examples of business risks to recommend and defend risk management strategies.

(22) The student knows the role of selling. The student is expected to:

(A) discuss the role of selling in an entrepreneurial venture;

(B) analyze internal and external environmental factors that influence selling; and

(C) develop and apply strategies for determining customer needs and wants.

§124.13. Principles of Marketing (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles of business and marketing, the concepts of economics and free enterprise and the understanding of human resource skills that an effective marketer must possess provide the foundation for the study of marketing. Understanding these concepts allows students to know the interrelationship between business and marketing.

(c) Knowledge and skills.

(1) The student knows business concepts and explains how business satisfies economic needs in an international economy. The student is expected to:

(A) categorize business activities as production, marketing, management, or finance;

(B) describe the interdependence each business activity has with marketing; and

(C) understand the ramifications of business conduct.

(2) The student knows the importance of marketing as well as the functions of marketing. The student is expected to:

(A) explain the marketing concept;

(B) describe each marketing function and how it contributes to the marketing concept;

(C) explain how each component of the marketing mix contributes to successful marketing;

(D) explain the importance of target markets;

(E) describe advantages and disadvantages of market segmentation and mass marketing; and

(F) research trends and emerging technologies affecting marketing.

(3) The student knows how to use self-development techniques and interpersonal skills to accomplish marketing objectives. The student is expected to:

(A) identify and practice effective interpersonal and team-building skills; and

(B) participate in leadership and career development activities (such as DECA and local chambers of commerce).

(4) The student knows the impact and value of diversity. The student is expected to:

(A) identify the effect of languages other than English on marketing; and

(B) explain how diversity affects marketing.

(5) The student knows that distribution channel members facilitate the movement of products. The student is expected to:

(A) identify channels of distribution for selected products; and

(B) describe activities of each channel member.

(6) The student knows that financial planning is necessary for the marketer's success and solvency. The student is expected to:

(A) identify sources of financial assistance; and

(B) explain the purpose of financial records (such as budget, balance sheet, and income statement).

(7) The student knows the role of a marketing-information system (MIS). The student is expected to:

(A) explain characteristics and purposes of a MIS; and

(B) identify benefits and limitations of marketing research.

(8) The student knows that pricing has policies, objectives, and strategies. The student is expected to:

(A) compare and contrast pricing policies; and

(B) analyze the price of a product.

(9) The student knows elements and processes of product planning. The student is expected to:

(A) describe stages of new-product planning;

(B) define the term "product mix;" and

(C) identify stages of the product life cycle for new or existing products.

(10) The student knows that successful marketers must develop, implement, and evaluate a promotional plan. The student is expected to:

(A) identify components of the promotional mix (such as advertising, visual merchandising, and personal selling); and

(B) analyze a promotional plan for effectiveness.

(11) The student knows that purchasing occurs in a continuous cycle. The student is expected to:

(A) distinguish between buying for resale and buying for organization use; and

(B) explain the importance of identifying needs as the first step of the purchasing process.

(12) The student knows that various types of risks impact business activities. The student is expected to:

(A) categorize business risks as natural, human, or economic; and

(B) explain methods a business uses to control risks (such as surveillance and safety training).

(13) The student knows the role of selling in a private enterprise economy. The student is expected to:

(A) explain how selling contributes to economic activity; and

(B) describe steps in the selling process.

§124.14. Retailing (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 9-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles of business and marketing, the concepts of economics and free enterprise, and the understanding of human resource skills that an effective marketer must possess provide the foundation for the study of retailing. Understanding these concepts allows students to know the interrelationship between business and marketing.

(c) Knowledge and skills.

(1) The student knows business concepts and how retail businesses satisfy economic needs. The student is expected to:

(A) categorize retailing activities as buying and pricing, transporting and storing, advertising and selling, servicing, financing, and risk taking; and

(B) explain the interdependence each retailing activity has with marketing and business.

(2) The student knows the relationship of business and society. The student is expected to:

(A) understand the ramifications of business conduct; and

(B) identify ways that businesses contribute to their community.

(3) The student knows that the implementation of marketing concepts significantly impacts retailing. The student is expected to:

(A) explain how the marketing mix contributes to successful retailing;

(B) explain the importance of target markets; and

(C) describe advantages and disadvantages of market segmentation and mass marketing.

(4) The student knows math concepts in retailing and performs calculations manually and with the aid of technology. The student is expected to:

(A) complete sales transactions, returns, and adjustments; and

(B) apply math concepts in retailing.

(5) The student integrates listening, reading, speaking, writing, and nonverbal communication skills effectively. The student is expected to:

(A) demonstrate comprehension of technical and specialized written communication; and

(B) communicate effectively in a retail setting.

(6) The student knows how to use self-development techniques and interpersonal skills to accomplish objectives. The student is expected to:

(A) identify and practice effective interpersonal and team-building skills with co-workers, managers, and customers; and

(B) participate in leadership and career development activities (such as DECA and local chambers of commerce).

(7) The student knows that management is the process of achieving goals through the use of human resources, technology, and material resources. The student is expected to:

(A) describe responsibilities for each level of retail management; and

(B) compare and contrast management styles.

(8) The student knows the importance of emerging trends and technologies in retailing. The student is expected to:

(A) discuss trends affecting retailing;

(B) research emerging technologies in retailing; and

(C) use the tools of information technology in retail settings (such as computerized inventory and video sales demonstrations).

(9) The student knows the impact and value of diversity. The student is expected to:

(A) identify the effect of languages other than English on retailing; and

(B) explain the impact of multiculturalism and multi-generationalism on retailing activities.

(10) The student knows that private enterprise is based on independent decisions by businesses and consumers with limited government involvement. The student is expected to:

(A) explain the role profit plays in a retail operation; and

(B) use market information to predict effects on retail pricing.

(11) The student knows that changes in the economy include prosperity, recession, depression, and recovery which may be collectively referred to as the business cycle. The student is expected to:

(A) explain the concept of business cycles; and

(B) explain how retailers react to periods of prosperity and recovery as well as to recession.

(12) The student knows that distribution channel members facilitate the movement of products. The student is expected to:

(A) identify channels of distribution for selected consumer products; and

(B) explain distribution strategies (such as warehousing, stock handling, and inventory control).

(13) The student knows that offering consumer credit encourages the sale of goods, services, and ideas. The student is expected to:

(A) describe credit policies offered to consumers by retail businesses; and

(B) explain the impact of consumer credit legislation and guidelines on retail credit policies.

(14) The student knows that financial planning is necessary for the retailer's success and solvency. The student is expected to:

(A) identify sources of financial assistance for a retail business; and

(B) explain the purpose of financial records (such as budget, balance sheet, and income statement).

(15) The student knows the role of a marketing-information system (MIS). The student is expected to:

(A) explain characteristics and purposes of a MIS; and

(B) identify areas where technological advances in electronic information pose new and ongoing ethical questions.

(16) The student knows that marketing research is a specific inquiry to solve a problem. The student is expected to:

(A) describe types of marketing research used in retailing; and

(B) list benefits and limitations of marketing research when applied to a retail situation.

(17) The student knows that retail pricing has policies, objectives, and strategies. The student is expected to:

(A) compare and contrast pricing policies and strategies among retail establishments; and

(B) explain how social responsibility objectives often play a major role in pricing decisions (such as prices after a natural disaster).

(18) The student knows controllable and uncontrollable variables that affect pricing. The student is expected to:

(A) list controllable variables that impact price; and

(B) describe uncontrollable variables that impact price.

(19) The student knows that successful retailers develop, implement, and evaluate promotional plans. The student is expected to:

(A) evaluate promotional objectives used in retail businesses;

(B) explain legal and ethical issues involved in promotion; and

(C) discuss how display, publicity, personal selling, and customer service work together to achieve a retailer's promotional objectives.

(20) The student knows that the retail establishment's physical environment should project a positive image. The student is expected to:

(A) classify components of image and critiques the physical environment of a retail business; and

(B) explain the impact of visual merchandising on retail sales.

(21) The student knows that purchasing occurs in a continuous cycle. The student is expected to:

(A) explain responsibilities of a retail buyer;

(B) use current technology to examine a retail merchandise plan;

(C) identify goods and services retailers use for daily operations; and

(D) describe ways to reduce operational expenses.

(22) The student knows that various types of risks impact retail businesses. The student is expected to:

(A) categorize types of business risks; and

(B) explain methods retailers use to control risks (such as surveillance, insurance, and safety training).

(23) The student knows what influences retail customers before they make a purchase. The student is expected to:

(A) discuss the Consumer Bill of Rights; and

(B) identify a customer's buying motives.

(24) The student knows the selling process. The student is expected to:

(A) illustrate the importance of product and service knowledge when presenting sales demonstrations; and

(B) prepare and deliver a sales presentation.

(25) The student knows the important role each retail employee plays in providing exceptional customer service. The student is expected to:

(A) describe employee actions and attitudes that result in customer satisfaction; and

(B) identify management actions and attitudes that result in customer satisfaction.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 15, 1997.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

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Subchapter C. Technical, High School

19 TAC §§124.21–124.25

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§124.21. Implementation of Texas Essential Knowledge and Skills for Marketing Education, Technical, High School.

The provisions of this chapter shall supersede §75.86 of this title (relating to Marketing Education) beginning September 1, 1998.

§124.22. Advertising (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 10-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles of business and marketing, the concepts of economics and free enterprise, and the understanding of human resource skills that an effective marketer must possess provide the foundation for the study of advertising. Understanding these concepts allows students to know the interrelationship between business and marketing.

(c) Knowledge and skills.

(1) The student knows the importance of marketing as well as the functions of marketing. The student is expected to:

(A) identify the marketing concept as it relates to achieving the goals of advertising;

(B) explain how advertising is an integral component of the marketing mix; and

(C) describe the effect of advertising on marketing functions.

(2) The student knows the relationship of business and society. The student is expected to:

(A) explain the concept of socially responsible advertising;

(B) identify target audiences to whom businesses are socially accountable; and

(C) research and evaluate advertisements in the context of social responsibility.

(3) The student knows the concepts of target marketing. The student is expected to:

(A) identify characteristics of a target market; and

(B) differentiate between advertising to a target audience (such as a market segment) and to the mass market.

(4) The student integrates listening, reading, speaking, writing, and nonverbal communication skills effectively. The student is expected to:

(A) practice effective business-like communication skills that support successful advertising;

(B) identify and practice effective interpersonal and team-building skills;

(C) demonstrate comprehension of technical and specialized communication used in the advertising industry; and

(D) participate in leadership and career development activities (such as DECA and local chambers of commerce).

(5) The student knows the importance of emerging trends and technologies in advertising. The student is expected to:

(A) discuss trends affecting the advertising industry; and

(B) use technology to develop and present advertising.

(6) The student knows the impact and value of diversity. The student is expected to:

(A) identify the effect of languages other than English on the advertising industry; and

(B) analyze the impact of diversity on advertising.

(7) The student knows that advertising impacts a competitive economic environment. The student is expected to:

(A) classify advertisements (such as price or nonprice, targeted audience, or mass market); and

(B) analyze competitive advertisements for effectiveness.

(8) The student knows that financial planning is necessary for the advertiser's success and solvency. The student is expected to:

(A) identify types of advertising budgets;

(B) discuss the importance of the budget planning process to achieve company goals;

(C) analyze charts and graphs to determine effects of competition, location, and availability of media on an advertising budget;

(D) describe the process of building an advertising budget; and

(E) develop an advertising budget using research-based estimates and projections.

(9) The student knows the components of the marketing research process in order to analyze demand, forecast sales, and make other decisions. The student is expected to:

(A) evaluate the impact of trade leveraging, market synergy, cooperative advertising, and other strategies on an advertising campaign;

(B) collect, analyze, and interpret data to design an advertising report; and

(C) draw conclusions and makes recommendations based on the advertising report.

(10) The student knows the importance of managing the pricing structure. The student is expected to:

(A) communicate differences among pricing structures for advertising services; and

(B) develop a pricing structure for an advertising plan.

(11) The student knows that promotion team members must develop, implement, and evaluate a promotional plan. The student is expected to:

(A) explain the concept of promotional mix;

(B) describe the interrelationship of visual merchandising, public relations and publicity, personal selling, and sales promotion with advertising;

(C) identify the target market for specific goods, services, and/or ideas;

(D) identify how promotional objectives, budget, and calendar support a promotional campaign; and

(E) apply evaluation strategies to determine promotional campaign effectiveness.

(12) The student knows that advertising is the paid form of nonpersonal communication about an identified sponsor's products. The student is expected to:

(A) differentiate between product and institutional advertising;

(B) compare and contrast advertising media;

(C) identify and evaluate elements of the advertisement that attract attention, develop interest, create desire, and produce action;

(D) develop an advertisement that is a focused and consumer-driven sequence of activities based on specific objectives; and

(E) plan, design, and present advertisements.

(13) The student knows that laws, regulations, social responsibilities, and diversity affect promotional activities. The student is expected to:

(A) compare and contrast outcomes of self-regulation and government regulation on the advertising industry; and

(B) incorporate regulations in a plan to protect the consumer from false and/or misleading advertising.

§124.23. International Marketing (One-Half to One Credit).

(a) General requirements. The recommended prerequisite for this course is Principles of Marketing. This course is recommended for students in Grades 10-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles of business and marketing, the concepts of economics and free enterprise, and the understanding of human resource skills that an effective marketer must possess provide the foundation for the study of international marketing. Understanding these concepts allows students to know the interrelationship between business and marketing.

(c) Knowledge and skills.

(1) The student knows major types of marketing strategies and explains a firm's rationale for its international operations' business structure. The student is expected to:

(A) research to determine the necessity for an international focus; and

(B) outline a plan for an international venture.

(2) The student knows the relationship of business and society. The student is expected to:

(A) list examples of socially responsible projects that an international business could undertake;

(B) describe ethical dilemmas when marketing internationally; and

(C) explain how an international business benefits from self-regulatory measures.

(3) The student knows international marketing strategies. The student is expected to:

(A) identify strategies for maintaining or increasing the business's involvement in international markets; and

(B) describe criteria used to determine when single or multinational marketing strategies are appropriate when deciding how to serve both domestic and foreign markets.

(4) The student knows the concepts of market and market identification and their importance in international marketing. The student is expected to:

(A) compare and contrast international marketing with target marketing; and

(B) describe the similarities between multinational marketing and mass marketing.

(5) The student applies math concepts in international marketing. The student is expected to:

(A) use formulas and equations to determine price, profit, costs, and break-even point; and

(B) calculate minimum cost-per-unit (such as when developing production strategies related to standardization).

(6) The student knows how to use self-development techniques and interpersonal skills to accomplish international marketing objectives. The student is expected to:

(A) identify and practice effective interpersonal and team-building skills; and

(B) participate in leadership and career development activities (such as DECA and local chambers of commerce).

(7) The student knows the cultural differences among countries. The student is expected to:

(A) explain types of resistance to change among cultures; and

(B) describe how a multinational corporation could adapt its business system to another culture.

(8) The student knows the importance of emerging trends and technologies in international marketing. The student is expected to:

(A) discuss trends affecting international marketing; and

(B) select and use the tools of information technology in international marketing.

(9) The student knows the impact and value of cultural diversity. The student is expected to:

(A) explain elements of culture and the need for understanding cultural diversity; and

(B) identify how cultural diversity affects international marketing decisions.

(10) The student knows that international marketing begins with a working knowledge of economic concepts. The student is expected to:

(A) identify economic systems found in other countries and how they influence international trade;

(B) explain the impact of exports and imports on the economies of both countries;

(C) describe the impact of geography and culture on economic activities of countries and regions;

(D) compare and contrast theories impacting international marketing (such as specialization, comparative advantage, and opportunity cost);

(E) list and describe the market structure for economic competition; and

(F) explain immigration and emigration and their effects on creating subsidiaries in other countries.

(11) The student knows reasons for the tremendous growth in and importance of international trade and investments. The student is expected to:

(A) explain balance of trade; and

(B) compare and contrast types of international agreements and their purposes.

(12) The student knows the different production strategies used in international operations. The student is expected to:

(A) describe competitive advantages of a technology-driven production strategy;

(B) explain the importance of standardization; and

(C) explain how adaptations of current strategies are necessary in less-developed countries.

(13) The student knows that various countries' policies affect the movement of goods and services in international marketing. The student is expected to:

(A) assess policies used to restrict the movement of goods and services; and

(B) evaluate changes in policies to minimize conflict and support international trade.

(14) The student knows the principal functions of international and United States governmental agencies responsible for promoting international commerce and stability. The student is expected to:

(A) identify legislation that promotes international trade; and

(B) describe functions of international and U.S. governmental agencies.

(15) The student knows the international monetary exchange system and explains effects of currency exchange fluctuations on international trade. The student is expected to:

(A) explain how international money markets function;

(B) differentiate among exchange hedging, arbitrage, and speculation; and

(C) explain the concept of a counter trade agreement.

(16) The student knows international pricing strategies. The student is expected to:

(A) describe the impact that governments and competition have on pricing; and

(B) analyze international pricing strategies.

(17) The student knows the importance of adapting products (such as goods, services, and ideas) to various international markets. The student is expected to:

(A) explain the importance of diversifying or adapting an international business' offerings; and

(B) describe adaptations necessary for international packaging and branding.

(18) The student knows the challenges involved when developing promotional strategies for international markets. The student is expected to:

(A) describe how language, culture, available media, and regulations affect international advertising; and

(B) evaluate types of promotion in the international market.

(19) The student knows the importance of international sourcing when making purchasing decisions. The student is expected to:

(A) explain the use of international sourcing;

(B) describe the process of selecting international suppliers and sources; and

(C) identify factors that affect the evaluation of international purchases.

(20) The student knows the various risks involved in international business. The student is expected to:

(A) categorize types of business risks as human, natural, and economic; and

(B) describe how political events affect international business.

(21) The student knows that in international marketing the selling process varies. The student is expected to:

(A) describe how cultural differences affect the selling process; and

(B) discuss challenges encountered in adjusting the selling process for international clients.

\$124.24. Professional Selling (One-Half to One Credit).

(a) General requirements. This course is recommended for students in Grades 10-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles of business and marketing and the understanding of human resource skills that an effective marketer must possess provide the foundation for the study of professional

selling. Understanding these concepts allows students to know the interrelationship between business and marketing.

(c) Knowledge and skills.

(1) The student knows that the marketing mix involves a combination of the decisions about product, price, place, promotion, and people. The student is expected to:

(A) analyze how selling is a marketing communications tool; and

(B) explain how each component of the marketing mix contributes to successful selling.

(2) The student knows the concepts of market and market identification. The student is expected to:

(A) explain the importance of target markets; and

(B) describe advantages and disadvantages of market segmentation and mass marketing.

(3) The student applies math concepts in selling. The student is expected to:

(A) perform calculations involving money, time, space, materials, and data.

(B) interpret charts and graphs to make informed marketing decisions;

(C) use formulas and equations to determine price, profit, cost, and break-even point; and

(D) make accurate sales estimates and projections.

(4) The student integrates listening, reading, speaking, writing, and nonverbal communication skills effectively. The student is expected to:

(A) practice active listening with co-workers, managers, and customers;

(B) communicate accurate, truthful, and ethical information;

(C) demonstrate effective business communication using correct grammar, form, and diction; and

(D) interpret and use a variety of nonverbal messages.

(5) The student knows how to use self-development techniques and interpersonal skills to accomplish marketing objectives. The student is expected to:

(A) practice effective interpersonal and team-building skills with co-workers, managers and customers;

(B) listen and respond appropriately to the ideas and opinions of others; and

(C) participate in leadership and career development activities (such as DECA and local chambers of commerce).

(6) The student knows how advancements in technology enhance professional selling. The student is expected to:

(A) analyze technology's impact on professional selling; and

(B) identify challenges encountered when using technology.

(7) The student knows that careers are ever changing and require continuing self-assessment, research, and preparation to develop and implement responsible decisions. The student is expected to:

- (A) analyze self-assessment information, including interests, aptitudes, and personal traits;
- (B) research and assess employment trends in sales careers; and
- (C) model steps for locating and securing employment.

(8) The student knows the importance of emerging trends and technologies in professional selling. The student is expected to:

- (A) discuss trends affecting professional selling; and
- (B) research emerging technologies in the professional selling industry.

(9) The student knows the impact and value of diversity. The student is expected to:

- (A) identify the effect of languages other than English on sales-related situations;
- (B) analyze social and cultural factors affecting buyer and seller relationships; and
- (C) analyze sales information and present it to a specific audience.

(10) The student knows that selling occurs in a competitive environment that requires constant assessment of market influences. The student is expected to:

- (A) analyze internal and external environmental factors that influence selling;
- (B) examine social responsibility from the viewpoint of sales management and staff;
- (C) describe major federal laws that impact selling; and
- (D) distinguish between the seller's and buyer's obligations under the Uniform Commercial Code.

(11) The student knows what influences customers before they make a purchase. The student is expected to:

- (A) identify product features, advantages, and benefits;
- (B) develop and apply a strategy for determining customer needs and wants; and
- (C) identify customer buying motives.

(12) The student knows how to obtain and use product and service information to facilitate the selling process. The student is expected to:

- (A) compile product information from a variety of sources (such as the product itself, company and competitors' promotional materials, and knowledgeable individuals); and
- (B) incorporate product information into sales presentations.

(13) The student knows how marketers use the selling process. The student is expected to:

- (A) prepare a sales presentation;
- (B) select and evaluate the use of sales approaches;
- (C) use information to incorporate questioning techniques into a sales presentation;
- (D) demonstrate a product;
- (E) overcome objections;
- (F) close a sale using different methods;
- (G) demonstrate suggestion selling techniques; and
- (H) prepare and deliver a sales presentation.

(14) The student knows that exceptional customer service is essential to successful selling. The student is expected to:

- (A) identify employee and management attitudes that result in customer satisfaction; and
- (B) describe how customer service and follow-up are major factors for success in professional selling.

§124.25. Technology in Marketing (One-Half to One Credit).

(a) General requirements. The recommended prerequisite for this course is proficiency with integrated software. This course is recommended for students in Grades 10-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles of business and marketing and the understanding of human resource skills that an effective marketer must possess provide the foundation for the study of technology in marketing. Understanding these concepts allows students to know the interrelationship between business and marketing.

(c) Knowledge and skills.

(1) The student knows the relationship of business and society. The student is expected to:

- (A) explain and categorize social responsibilities; and
- (B) identify ways that businesses contribute to their community.

(2) The student knows that successful entrepreneurial ventures depend on preliminary analysis and planning. The student is expected to:

- (A) research the most current resources, including on-line resources, available for accessing information related to marketing; and

(B) use technology to create and present a business plan.

(3) The student applies math concepts in all areas of marketing. The student is expected to:

(A) select and use applications appropriate for money, time, space, materials, and data calculations;

(B) employ technology to create and interpret charts and graphs to make informed marketing decisions; and

(C) use productivity tools (such as spreadsheets and databases) to determine price, profit, cost, and break-even point.

(4) The student integrates listening, reading, speaking, writing, nonverbal, and electronic communication skills effectively. The student is expected to:

(A) communicate effectively in a business setting;

(B) develop effective business correspondence (such as memoranda, business letters, and reports) using correct grammar, spelling, punctuation, and form; and

(C) utilize technology in receiving and sending business communication.

(5) The student knows how to use self-development techniques and interpersonal skills to accomplish marketing objectives. The student is expected to:

(A) identify and practice effective interpersonal and team-building skills; and

(B) participate in leadership and career development activities (such as DECA and local chambers of commerce).

(6) The student knows that management is the process of achieving goals through the use of technology and human and material resources. The student is expected to:

(A) analyze the effectiveness of management's application of resources;

(B) select and use technology to gather, process, and disseminate information; and

(C) use product features and benefits to recommend the purchase and/or upgrade of technology-related hardware and software.

(7) The student knows the importance of emerging trends and technologies in marketing. The student is expected to:

(A) discuss trends affecting marketing technologies; and

(B) research emerging technologies in marketing.

(8) The student knows the impact and value of diversity. The student is expected to:

(A) describe electronic and computer-based options to facilitate communication; and

(B) identify how diversity affects technology.

(9) The student knows that distribution involves activities associated with the physical movement or transfer of ownership of products. The student is expected to:

(A) identify technology-based inventory control equipment and procedures to facilitate transportation, storage, and product handling; and

(B) use productivity tools to determine costs associated with distribution.

(10) The student knows that financial planning is necessary for the marketer's success and solvency. The student is expected to:

(A) use computer software to analyze financial statements of a business;

(B) employ technology to compare planned financial goals to actual financial statements; and

(C) create a financial statement using computer software.

(11) The student uses marketing-information systems (MIS). The student is expected to:

(A) explain characteristics and purposes of a MIS and how technology can be used to manage these systems; and

(B) identify benefits and limitations of marketing research and the technology used to manage research.

(12) The student knows the components of the marketing research process in order to analyze demand, forecast sales, and make other decisions. The student is expected to:

(A) use technology to depict components of the marketing research process;

(B) design and implement a study with the aid of computer and on-line research technology;

(C) use technology to analyze and interpret the data collected; and

(D) use multimedia technology to present research findings and recommendations.

(13) The student knows that pricing has policies, objectives, and strategies. The student is expected to:

(A) develop and analyze pricing objectives;

(B) recommend appropriate pricing strategies; and

(C) develop a pricing structure for a marketing plan using technology.

(14) The student knows elements and processes of product planning. The student is expected to:

(A) employ current technology to create a plan for a new product; and

(B) utilize current technology to design a product package that includes the necessary elements of packaging.

(15) The student knows that successful marketers must develop, implement, and evaluate a promotional plan. The student is expected to:

(A) develop a promotional budget and calendar;

(B) research the use of technology to evaluate the effectiveness of promotional activities;

- (C) create an ad layout using desktop publishing; and
- (D) create a floor plan for a business using graphics software.

(16) The student knows that purchasing occurs in a continuous cycle. The student is expected to:

- (A) place orders utilizing technology;
- (B) use computer software to create business forms that facilitate the purchasing function; and
- (C) use technology to research, produce, and present a buying plan.

(17) The student knows classifications of risks that affect business activities. The student is expected to:

- (A) access electronic information sources to explore business risks; and
- (B) identify security issues involved when businesses have and use technology.

(18) The student knows how marketers use technology in the selling process. The student is expected to:

- (A) research how selling is changing through the use of electronic sales tools; and
- (B) use technology to facilitate the selling process.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Subchapter D. Comprehensive, High School

19 TAC §§124.31–124.33

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§124.31. Implementation of Texas Essential Knowledge and Skills for Marketing Education, Comprehensive, High School.

The provisions of this chapter shall supersede §75.86 of this title (relating to Marketing Education) beginning September 1, 1998.

§124.32. Marketing Dynamics (One to Three Credits).

(a) General requirements. This course is recommended for students in Grades 11-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain

knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles of business and marketing, the concepts of economics and free enterprise, and the understanding of human resource skills that an effective marketer must possess provide the foundation for the study of marketing dynamics. Understanding and applying these concepts allows students to know the interrelationship between business and marketing.

(c) Knowledge and skills.

(1) The student knows business concepts and how business satisfies economic needs. The student is expected to:

- (A) categorize business activities as production, marketing, management, or finance;
- (B) explain the interdependence each business activity has with marketing;
- (C) explain the impact of an international economy on business activities; and
- (D) describe advantages and disadvantages of various forms of business ownership.

(2) The student knows the relationship of business and society. The student is expected to:

- (A) understand the ramifications of business conduct;
- (B) identify ways that businesses contribute to their community; and
- (C) explain contributions that marketing makes to business and society.

(3) The student knows the importance of marketing as well as the functions of marketing. The student is expected to:

- (A) explain the marketing concept; and
- (B) describe each marketing function and how it illustrates the marketing concept.

(4) The student knows that the marketing mix involves a combination of the decisions about product, price, place, promotion, and people. The student is expected to:

- (A) explain how each component of the marketing mix contributes to successful marketing; and
- (B) describe the importance of marketing strategies in the marketing mix.

(5) The student knows the concepts of market and market identification. The student is expected to:

- (A) explain the importance of target markets;
- (B) describe advantages and disadvantages of market segmentation and mass marketing; and

(C) distinguish among geographic, demographic, psychographic, and behavioral segmentation.

(6) The student applies math concepts in marketing. The student is expected to:

(A) perform calculations involving money, time, space, materials, and data;

(B) interpret charts and graphs to make informed marketing decisions; and

(C) use formulas and equations to determine price, profit, costs, and break-even point.

(7) The student integrates listening, reading, speaking, writing, and nonverbal communication skills effectively. The student is expected to:

(A) communicate effectively in a business setting;

(B) develop effective business correspondence (such as memoranda, business letters, and reports) using correct grammar, spelling, punctuation, and form; and

(C) utilize technology in receiving and sending business communication.

(8) The student knows how to use self-development techniques and interpersonal skills to accomplish marketing objectives. The student is expected to:

(A) identify and practice effective interpersonal and team-building skills involving situations with co-workers, managers, and customers;

(B) develop short- and long-term personal goals;

(C) identify and use time management principles; and

(D) participate in leadership and career development activities (such as DECA and local chambers of commerce).

(9) The student applies information technology as an effective marketing tool. The student is expected to:

(A) research the use of information technology in marketing; and

(B) select and use the tools of information technology in marketing.

(10) As a lifelong learner, the student knows that careers are ever changing and require continual self-assessment, research, and preparation to develop and implement responsible decisions. The student is expected to:

(A) collect and analyze self-assessment information, including interests, aptitudes, and personal traits;

(B) research and assess employment trends in marketing careers; and

(C) model the steps for locating and securing employment.

(11) The student knows the importance of emerging trends and technologies in marketing. The student is expected to:

(A) discuss trends affecting marketing; and

(B) research emerging technologies in marketing.

(12) The student knows the impact and value of diversity. The student is expected to:

(A) identify the effect of languages other than English on marketing;

(B) explain how diversity affects marketing; and

(C) explain the impact of multiculturalism and multi-generationalism on marketing activities.

(13) The student knows that marketing begins with a working knowledge of economic concepts. The student is expected to:

(A) describe characteristics of economic goods and services;

(B) identify economic needs and wants;

(C) explain the concept of utility and cite examples of types of utility;

(D) explain the concept of price; and

(E) explain how the interaction of supply and demand affects price.

(14) The student knows that a nation's economic system is determined by what is produced, how it is produced, and how it is distributed. The student is expected to:

(A) compare and contrast how economies answer the basic economic questions; and

(B) explain why most economies are mixed.

(15) The student knows that private enterprise is based on independent decisions by businesses and consumers concerning the right to own property, own a business, compete, make a profit, and exercise consumer choice with limited government involvement. The student is expected to:

(A) describe characteristics of a private enterprise system;

(B) explain advantages and disadvantages of private enterprise;

(C) describe the role profit plays in a market economy;

(D) list examples of competitive business situations; and

(E) identify examples of competitive business situations as price or nonprice competition.

(16) The student knows that gross domestic product (GDP), standard of living, consumer price index, and unemployment figures help measure whether an economy is accomplishing its goals. The student is expected to:

(A) identify economic measurements used to analyze an economy; and

(B) explain how economic measures are used in a market economy.

(17) The student knows that changes in the economy include prosperity, recession, depression, and recovery, that may be collectively referred to as the business cycle. The student is expected to:

- (A) explain the concept of business cycles; and
- (B) describe the impact that phases of a business cycle have on the economy.

(18) The student knows that international economic factors affect marketing planning. The student is expected to:

- (A) distinguish between imports and exports;
- (B) explain the interdependence of nations; and
- (C) analyze advantages and disadvantages of international trade.

(19) The student knows that distribution channel members facilitate the movement of products. The student is expected to:

- (A) explain channels of distribution; and
- (B) evaluate a distribution plan.

(20) The student knows that distribution involves activities associated with the physical movement or transfer of ownership of products from producer to consumer. The student is expected to:

- (A) identify physical distribution activities; and
- (B) determine costs associated with distribution.

(21) The student knows that distribution involves stock handling and inventory control. The student is expected to:

- (A) describe the receiving process;
- (B) explain types of inventory systems;
- (C) evaluate inventory shrinkage; and
- (D) explain the impact of technology on inventory systems.

(22) The student knows that financial planning is necessary for the marketer's success and solvency. The student is expected to:

- (A) explain the impact of financial planning on marketing decisions; and
- (B) analyze a business or organization's financial reports and goals.

(23) The student knows that marketers use investment and financial services to achieve goals and objectives. The student is expected to:

- (A) identify types of financial services;
- (B) explain the purpose of a credit contract; and
- (C) explain the impact of credit legislation.

(24) The student knows the role of pricing. The student is expected to:

- (A) state goals of pricing;
- (B) identify factors affecting pricing;
- (C) explain how pricing affects product, place, and promotion decisions;
- (D) compare and contrast pricing policies; and
- (E) calculate a product's price.

(25) The student knows the role of promotion. The student is expected to:

- (A) explain the communication process as used in promotional activities;
- (B) describe types of promotion; and
- (C) explain the concept of promotional mix.

(26) The student knows that advertising is the paid form of nonpersonal communication about an identified sponsor's products. The student is expected to:

- (A) identify types of advertising media;
- (B) differentiate between product and institutional advertising; and
- (C) identify and evaluate elements of an advertisement.

(27) The student knows that business risk is the possibility of loss or failure. The student is expected to:

- (A) categorize business risks; and
- (B) explain how various types of risks impact business activities.

(28) The student knows that marketers responsible for risk management follow a process to decide the best strategy to deal with each risk. The student is expected to:

- (A) explain security precautions; and
- (B) demonstrate knowledge of safety precautions and skills related to health and safety in the workplace.

(29) The student knows what influences customers before they make a purchase. The student is expected to:

- (A) differentiate among a feature, an advantage, and a benefit;
- (B) differentiate between consumer and organizational buying behavior;
- (C) determine customer needs and wants;
- (D) classify buying motives;
- (E) analyze how customers and organizations apply the decision-making process;
- (F) identify major influences on buying behavior; and
- (G) acquire information about customer needs.

(30) The student knows how marketers use the selling process. The student is expected to:

- (A) locate product information;
- (B) approach a customer to open a sale;
- (C) illustrate why the approach should have a theme that is related to the presentation and the customer's buying motives;
- (D) incorporate questioning/probing techniques;
- (E) prepare a sales presentation;
- (F) demonstrate how to overcome objections;

- (G) demonstrate how to close a sale; and
- (H) demonstrate the sales process.

(31) The student knows the important role each employee plays in providing exceptional customer service. The student is expected to:

- (A) identify employee actions that result in customer satisfaction; and
- (B) identify employee attitudes that result in customer satisfaction.

§124.33. Marketing Management (One to Three Credits).

(a) General requirements. The recommended prerequisite for this course is Principles of Marketing or Marketing Dynamics. This course is recommended for students in Grades 11-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles of business and marketing, the concepts of economics and free enterprise, and the understanding of human resource skills that an effective marketer must possess provide the foundation for the study of marketing management. Understanding and applying these concepts allows students to know the interrelationship between business and marketing.

(c) Knowledge and skills.

(1) The student knows business concepts and how business satisfies economic needs. The student is expected to:

- (A) analyze the impact of an international economy on business activities; and
- (B) analyze the impact of multiculturalism and multi-generationalism on business activities.

(2) The student knows marketing mix. The student is expected to:

- (A) explain the relationship among goals, tactics, and strategies pertaining to the marketing mix; and
- (B) explain factors that may cause marketing strategies to change.

(3) The student knows the concepts of market and market identification. The student is expected to:

- (A) research market segmentation trends; and
- (B) identify types of segmentation in markets.

(4) The student knows that the United States (U.S.) free enterprise system offers marketers entrepreneurial opportunities. The student is expected to:

- (A) explain the importance of the U.S. free enterprise system in encouraging opportunities for entrepreneurial ventures; and
- (B) analyze a proposed business plan.

(5) The student knows that management is the process of achieving goals through the use of human resources, technology, and material resources. The student is expected to:

- (A) differentiate among levels of management;
- (B) compare and contrast management styles;
- (C) identify effective recruitment, selection, training and development, and performance evaluation techniques;
- (D) demonstrate an understanding of the process used to train and monitor employees to ensure compliance with laws, regulations, and self-regulatory measures; and
- (E) model techniques to use in difficult customer relations situations.

(6) The student knows the need for professional and career development. The student is expected to:

- (A) identify types of trade journals and periodicals of use to marketers; and
- (B) explain the role of professional organizations, trade associations, and labor unions.

(7) The student applies math concepts in management. The student is expected to:

- (A) make accurate estimates and projections; and
- (B) interpret data found in financial reports.

(8) The student integrates listening, reading, speaking, writing, and nonverbal communication skills effectively. The student is expected to:

- (A) communicate effectively in a business management setting;
- (B) demonstrate rules of order in a business meeting;
- (C) develop effective business correspondence; and
- (D) utilize technology in receiving and sending business communication.

(9) The student knows how to use self-development techniques and interpersonal skills to accomplish marketing management objectives. The student is expected to:

- (A) demonstrate effective interpersonal and team-building skills involving situations with co-workers, managers, and customers;
- (B) plan leadership and career development activities (such as DECA and local chambers of commerce); and
- (C) develop employability skills for advancement.

(10) The student knows the importance of emerging trends and technologies in marketing. The student is expected to:

- (A) discuss trends affecting marketing;
- (B) research emerging technologies in marketing; and

(C) select and use the tools of information technology in marketing.

(11) The student knows the impact and value of diversity. The student is expected to:

(A) identify the effect of languages other than English on marketing;

(B) identify how cultural diversity affects marketing; and

(C) discover legal responsibilities of diversity.

(12) The student knows that marketing begins with a working knowledge of economic concepts. The student is expected to:

(A) describe ways in which marketing affects utility; and

(B) use information about supply and demand to predict their influence on pricing.

(13) The student knows that private enterprise is based on independent decisions by businesses and consumers. The student is expected to:

(A) explain ways to increase productivity and profit; and

(B) discuss advantages and disadvantages of specialization.

(14) The student knows that gross domestic product (GDP), standard of living, consumer price index, and unemployment figures help measure whether an economy is accomplishing its goals. The student is expected to:

(A) research and report on the current economic climate with regard to GDP, unemployment, standard of living, and other economic indicators; and

(B) explain why the GDP is an accurate indicator of the economic health of a nation.

(15) The student knows that changes in the economy include prosperity, recession, depression, and recovery, that may be collectively referred to as the business cycle. The student is expected to:

(A) describe the impact that a business cycle has on an economy; and

(B) explain how businesses react to economic changes.

(16) The student knows that international economic factors affect marketing planning. The student is expected to:

(A) identify strategies for entering international markets; and

(B) describe cultural, economic, and political factors considered when engaging in international trade.

(17) The student knows that marketing research is a specific inquiry to solve a problem. The student is expected to:

(A) explain the importance of marketing research;

(B) describe areas of marketing research (such as advertising, product, market, and sales);

(C) explain the purpose of test marketing;

(D) identify trends affecting marketing research; and

(E) discuss benefits and limitations of marketing research.

(18) The student knows the components of the marketing research process in order to analyze demand, forecast sales, and make other decisions. The student is expected to:

(A) describe the marketing research process;

(B) identify methods of collecting data;

(C) describe ways technology is used in research;

(D) design and implement a study;

(E) analyze and interpret data collected;

(F) develop a research report; and

(G) make recommendations based on the research report.

(19) The student knows the elements and processes of product planning. The student is expected to:

(A) explain the nature and scope of product planning;

(B) describe product mix strategies;

(C) identify steps in new-product planning; and

(D) define the product life cycle.

(20) The student knows the importance of branding and extended product features. The student is expected to:

(A) define branding elements;

(B) explain applicable grades and standards;

(C) distinguish between warranties and guarantees; and

(D) design a product package and/or label.

(21) The student knows the laws and regulations that affect new product development. The student is expected to:

(A) differentiate among laws, regulations, and self-regulatory measures for new-product development;

(B) explain consumer protection provisions of government agencies; and

(C) explain how business is affected by government regulation of consumer protection.

(22) The student knows that advertising is the paid form of nonpersonal communication about an identified sponsor's products. The student is expected to:

(A) calculate the cost-effectiveness of media; and

(B) create an advertising campaign.

(23) The student knows that the physical environment found at a place of business should project a positive image. The student is expected to:

- (A) evaluate image; and
- (B) analyze factors involved in facilities design, maintenance, and improvement.

(24) The student knows that public relations and publicity can be used to promote a business or organization. The student is expected to:

- (A) prepare publicity materials;
- (B) identify activities that would encourage positive public relations; and
- (C) analyze potential impact of publicity and offer possible strategies for dealing with its impact.

(25) The student knows that sales promotion activities or materials offer customers a direct incentive to buy. The student is expected to:

- (A) identify examples of sales promotion materials; and
- (B) analyze how sales promotion materials encourage sales.

(26) The student knows that the purchasing process occurs in a continuous cycle. The student is expected to:

- (A) explain the process of identifying needs;
- (B) describe the process of selecting suppliers and sources;
- (C) explain the negotiation process;
- (D) explain how goods and services are ordered; and
- (E) identify strategies used in evaluating purchases.

(27) The student knows that businesses need goods and services for daily operation. The student is expected to:

- (A) analyze the selection of goods and services based on a business' operational needs; and
- (B) compare and contrast terms offered by suppliers.

(28) The student knows that a buying plan identifies products to be offered for sale for a particular period of time. The student is expected to:

- (A) describe and calculate merchandising-related discounts;
- (B) explain vendors' terms and policies; and
- (C) calculate the final cost of a product.

(29) The student knows how managers use the selling process. The student is expected to:

- (A) use information about customers to make management decisions; and
- (B) prepare and deliver a sales presentation.

(30) The student knows the important role each employee plays in providing exceptional customer service. The student is expected to:

- (A) identify employee and management actions as well as attitudes that result in customer satisfaction; and

- (B) describe how customer service and follow-up are major factors for success in marketing.

(31) The student knows the management of selling activities. The student is expected to:

- (A) explain sales and financial quotas;
- (B) identify types of information contained in sales records; and
- (C) demonstrate proper procedures for maintaining sales records.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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Subchapter E. Specialized, High School

19 TAC §§124.41–124.47

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§124.41. Implementation of Texas Essential Knowledge and Skills for Marketing Education, Specialized, High School.

The provisions of this chapter shall supersede §75.86 of this title (relating to Marketing Education) beginning September 1, 1998.

§124.42. Fashion Marketing (One-Half to Three Credits).

(a) General requirements. This course is recommended for students in Grades 10-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles and concepts of marketing and economics, as well as a variety of human resource skills, provide a foundation that allows students to make well-informed, responsible decisions. In the highly-competitive, international business environment, marketing functions and techniques must be adapted to meet the needs of specialized marketing industries, such as fashion marketing. Through occupationally-specific applications, students will

learn career-sustaining skills that make marketing a valuable asset in today's world.

(c) Knowledge and skills.

(1) The student knows business concepts and explains how business satisfies economic needs. The student is expected to:

(A) categorize business activities as production, marketing, management, or finance;

(B) explain the interdependence each business activity has with marketing;

(C) explain the implications of business conduct using fashion industry examples; and

(D) describe how international marketing has affected the fashion industry.

(2) The student knows the importance of marketing as well as the functions of marketing. The student is expected to:

(A) explain the marketing concept;

(B) describe each marketing function and how it relates to the fashion industry;

(C) explain how each component of the marketing mix contributes to successful marketing;

(D) explain the importance of target markets;

(E) describe advantages and disadvantages of market segmentation and mass marketing; and

(F) research trends and emerging technologies affecting fashion marketing.

(3) The student knows the impact and value of diversity. The student is expected to:

(A) explain elements of culture and the need for understanding cultural diversity; and

(B) identify how diversity affects fashion.

(4) The student knows how to use self-development techniques and interpersonal skills to accomplish marketing objectives. The student is expected to:

(A) explain and practice effective interpersonal and team-building skills with co-workers, managers, and customers;

(B) participate in leadership and career development activities (such as DECA and local chambers of commerce); and

(C) explain the role of professional organizations, trade associations, and labor unions in the fashion industry.

(5) The student knows that distribution channel members facilitate the movement of products. The student is expected to:

(A) explain channels of distribution for fashion products; and

(B) describe activities of each channel member.

(6) The student knows that financial planning is necessary for the marketer's success and solvency. The student is expected to:

(A) identify sources of financial assistance; and

(B) explain the purpose of financial records (such as budget, balance sheet, and income statement).

(7) The student knows the marketing-information system (MIS). The student is expected to:

(A) explain characteristics and purposes of a MIS;

(B) identify benefits and limitations of marketing research;

(C) explain the use of inventory control information (such as to prepare financial reports and make buying decisions); and

(D) analyze data used to make accurate forecasts.

(8) The student knows that pricing has policies, objectives, and strategies. The student is expected to:

(A) compare and contrast pricing policies;

(B) develop a sample credit policy that could be a useful fashion marketing strategy; and

(C) analyze the price of a fashion product.

(9) The student knows the elements and processes of product planning. The student is expected to:

(A) describe stages of new-product planning;

(B) define the term "product mix;" and

(C) identify stages of the product life cycle for new or existing fashion products.

(10) The student knows that successful marketers must develop, implement, and evaluate a promotional plan. The student is expected to:

(A) identify components of the promotional mix (such as advertising, visual merchandising, and personal selling);

(B) demonstrate visual merchandising techniques for fashion goods, services, or ideas; and

(C) analyze a promotional plan for effectiveness.

(11) The student knows that purchasing occurs as steps in a continuous cycle. The student is expected to:

(A) distinguish between buying for resale and buying for organization use;

(B) explain the importance of identifying needs as the first step of the purchasing process; and

(C) demonstrate knowledge of the fashion buying process (such as preparing a buying plan, completing purchase orders, and processing invoices).

(12) The student knows that various types of risks impact business activities. The student is expected to:

(A) categorize business risks; and

(B) explain methods a business uses to control risks (such as surveillance and safety training).

(13) The student knows the role of selling in a private enterprise economy. The student is expected to:

(A) explain how selling contributes to economic activity;

(B) describe the process of selecting and merchandising apparel and accessory products; and

(C) demonstrate steps in the selling process using fashion products.

(14) The student knows the nature and scope of fashion. The student is expected to:

(A) explain the importance of fashion;

(B) demonstrate knowledge of fashion history and how it relates to today's fashions;

(C) distinguish among fashion terms (such as fashion, style, and design);

(D) list major environmental influences on fashion demand;

(E) research fashion information; and

(F) explain legislation that impacts the fashion industry.

(15) The student knows that a career in fashion marketing requires knowledge of textiles and design. The student is expected to:

(A) explain how the development of textiles has influenced the fashion industry;

(B) differentiate between natural and synthetic fibers;

(C) explain elements and principles of design in fashion apparel;

(D) list the steps from apparel design to the finished product; and

(E) research the use of technology in fashion design, production, and distribution.

(16) The student knows that a career in fashion marketing requires knowledge of the industry. The student is expected to:

(A) research careers in the fashion industry;

(B) list and describe businesses related to the fashion industry; and

(C) delineate components of softlines (such as sportswear, footwear, and men's and children's fashions).

§124.43. Food Marketing (One-Half to Three Credits).

(a) General requirements. This course is recommended for students in Grades 10-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles and concepts of marketing, as well as a variety of human resource skills, provide a foundation that allows students to make well-informed, responsible decisions. In the highly-competitive, international business environment, marketing functions and techniques must be adapted to meet the needs of specialized marketing industries, such as food marketing. Through occupationally-specific applications, students will learn skills that make marketing a profitable and satisfying career.

(c) Knowledge and skills.

(1) The student knows business concepts and explains how business satisfies economic needs. The student is expected to:

(A) categorize business activities as production, marketing, management, or finance;

(B) explain the interdependence each business activity has with marketing; and

(C) understand the ramifications of business conduct.

(2) The student knows the importance of marketing as well as the functions of marketing. The student is expected to:

(A) explain the marketing concept;

(B) describe each marketing function and how it contributes to the marketing concept;

(C) explain how each component of the marketing mix contributes to successful marketing;

(D) explain the importance of target markets;

(E) describe advantages and disadvantages of market segmentation and mass marketing; and

(F) research trends and emerging technologies affecting food marketing.

(3) The student knows how to use self-development techniques and interpersonal skills to accomplish marketing objectives. The student is expected to:

(A) identify and practice effective interpersonal and team-building skills with co-workers, managers, and customers; and

(B) participate in leadership and career development activities (such as DECA and local chambers of commerce).

(4) The student knows the impact and value of diversity. The student is expected to:

(A) explain the impact of multiculturalism and multi-generationalism on food marketing activities; and

(B) identify how diversity affects food marketing.

(5) The student knows that distribution channel members facilitate the movement of products. The student is expected to:

(A) identify channels of distribution for selected products; and

(B) identify roles and responsibilities of manufacturers, wholesalers, and other channel members.

(6) The student knows that financial planning is necessary for the marketer's success and solvency. The student is expected to:

(A) identify sources of financial assistance;

(B) explain the purpose of financial records (such as budget, balance sheet, and income statement); and

(C) explain the relationship of perishability to profit and loss.

(7) The student knows the role of a marketing-information system (MIS). The student is expected to:

(A) explain characteristics and purposes of a MIS;

(B) identify benefits and limitations of marketing research;

(C) describe the process of sales forecasting and its effect on purchasing, scheduling, staffing, and paying salaries; and

(D) analyze the cost-benefit relationship of implementing information technology systems in food marketing operations.

(8) The student knows that pricing has policies, objectives, and strategies. The student is expected to:

(A) compare and contrast pricing policies;

(B) analyze the price of a product; and

(C) give examples of price and nonprice competition.

(9) The student knows elements and processes of product planning. The student is expected to:

(A) describe stages of new-product planning;

(B) define the term "product mix;" and

(C) identify stages of the product life cycle for new or existing food products.

(10) The student knows that successful marketers must develop, implement, and evaluate a promotional plan. The student is expected to:

(A) identify components of the promotional mix (such as advertising, visual merchandising, and personal selling);

(B) critique elements of a retail food operation's image (such as cleanliness, lighting, customer safety, and physical layout);

(C) evaluate customer service policies;

(D) explain the importance of public and community relations in retail food operations;

(E) identify components of a successful merchandising program (such as product mix, display, sampling, and store layout); and

(F) analyze a promotional plan for effectiveness.

(11) The student knows that purchasing occurs as steps in a continuous cycle. The student is expected to:

(A) distinguish between buying for resale and buying for organization use;

(B) explain the importance of identifying needs as the first step of the purchasing process;

(C) analyze factors affecting the product selection process;

(D) evaluate vendors based on product and service offerings; and

(E) analyze, select, and defend product selection for a food marketing business.

(12) The student knows that various types of risks impact business activities. The student is expected to:

(A) categorize business risks;

(B) give examples of safety and liability risks and propose solutions; and

(C) identify situations that contribute to store loss (such as damaged goods, customer and employee theft, and fraud) and propose solutions.

(13) The student knows the role of selling in a private enterprise economy. The student is expected to:

(A) explain how selling contributes to economic activity; and

(B) describe steps in the selling process.

(14) The student knows the important role each employee plays in providing exceptional customer service. The student is expected to:

(A) identify employee actions and attitudes that result in customer satisfaction; and

(B) identify management actions and attitudes that result in customer satisfaction.

(15) The student knows the dynamic and diverse nature of the food/grocery industry. The student is expected to:

(A) research career opportunities (such as at the manufacturing, wholesale, and retail levels);

(B) discuss transferability of skills within the industry;

(C) explain the concept of cross-training;

(D) identify roles and responsibilities of manufacturers, wholesalers, and other channel members; and

(E) use industry-specific terminology.

(16) The student knows that the retail food operation is organized by departments. The student is expected to:

(A) diagram a retail food operation to denote its departments and their functions (such as produce, general merchandise, grocery, meat, and dairy);

(B) describe how the interrelationship among departments contributes to the store's overall success;

(C) explain factors that influence product mix in supermarket departments; and

(D) compare and contrast supermarket requirements (such as sanitation, perishability, and stock rotation) for each department.

§124.44. *Hotel Management (One-Half to Three Credits).*

(a) General requirements. This course is recommended for students in Grades 10-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles and concepts of marketing, as well as a variety of human resource skills, provide a foundation that allows students to make well-informed, responsible decisions. In the highly- competitive, international business environment, marketing functions and techniques must be adapted to meet the needs of specialized marketing industries, such as hotel management. Through occupationally-specific applications, students will learn career-sustaining skills that make marketing a valuable asset in today's world.

(c) Knowledge and skills.

(1) The student knows business concepts and explains how business satisfies economic needs in an international economy. The student is expected to:

(A) categorize business activities as production, marketing, management, or finance;

(B) explain the interdependence each business activity has with marketing; and

(C) understand the ramifications of business conduct.

(2) The student knows the importance of marketing as well as the functions of marketing. The student is expected to:

(A) explain the marketing concept;

(B) describe each marketing function and how it contributes to the marketing concept;

(C) explain how each component of the marketing mix contributes to successful marketing;

(D) explain the importance of target markets;

(E) describe advantages and disadvantages of market segmentation and mass marketing; and

(F) research trends and emerging technologies affecting marketing in the hotel industry.

(3) The student knows how to use self-development techniques and interpersonal skills to accomplish marketing objectives. The student is expected to:

(A) identify and practice effective interpersonal and team-building skills;

(B) participate in leadership and career development activities (such as DECA and local chambers of commerce); and

(C) explain the role of professional organizations, trade associations, and labor unions in the hotel industry.

(4) The student knows the impact and value of diversity. The student is expected to:

(A) identify the effect of languages other than English on the hotel industry;

(B) explain the impact of multiculturalism and multi-generationalism on hotel operations and management; and

(C) identify how diversity affects the hotel industry.

(5) The student knows the process for managing hotel staff. The student is expected to:

(A) demonstrate an understanding of levels of management;

(B) compare and contrast management styles;

(C) identify effective recruitment, selection, training, development, and performance evaluation techniques;

(D) demonstrate an understanding of the process used to train and monitor hotel employees to ensure compliance with laws, regulations, and self-regulatory measures;

(E) discuss functions of the front of house, sales, food and beverage, and rooms management; and

(F) identify types of trade journals and periodicals of use to hotel managers.

(6) The student knows that distribution channel members facilitate the movement of products. The student is expected to:

(A) identify channels of distribution for selected hotel products; and

(B) describe activities of each channel member.

(7) The student knows that financial planning is necessary for the marketer's success and solvency. The student is expected to:

(A) identify sources of financial assistance;

(B) analyze financial records (such as budget, balance sheet, and income statement); and

(C) discuss hotel/lodging accounting procedures (such as auditing and maintaining ledgers and folios).

(8) The student knows the role of a marketing-information system (MIS). The student is expected to:

(A) explain characteristics and purposes of a MIS;

(B) identify benefits and limitations of marketing research;

(C) analyze data used to make accurate forecasts; and

(D) explain the importance of computer reservation systems and hotel chain directories.

(9) The student knows that pricing has policies, objectives, and strategies. The student is expected to:

(A) compare and contrast pricing policies; and

(B) analyze the price of a product (such as room rates, meeting space rental, or food costs).

(10) The student knows elements and processes of product planning. The student is expected to:

(A) describe stages of new-product planning;

(B) define the term "product mix;"

(C) identify stages of the product life cycle for new or existing products; and

(D) present examples of product mix for the hotel industry.

(11) The student knows that successful marketers must develop, implement, and evaluate a promotional plan. The student is expected to:

(A) identify components of the promotional mix (such as advertising, visual merchandising, and personal selling); and

(B) analyze the effectiveness of a promotional plan for the hotel industry.

(12) The student knows that purchasing occurs in a continuous cycle. The student is expected to:

(A) distinguish between buying for resale and buying for organization use;

(B) explain the importance of identifying needs as the first step of the purchasing process; and

(C) analyze and discuss selection of goods and services based on a hotel's operational needs.

(13) The student knows that various types of risks impact business. The student is expected to:

(A) categorize business risks as natural, human, or economic;

(B) discuss business risks specific to the hotel industry; and

(C) explain methods a business uses to control risks (such as surveillance and safety training).

(14) The student knows the role of selling in a private enterprise. The student is expected to:

(A) explain how selling contributes to economic activity;

(B) discuss the role each hotel employee plays in selling; and

(C) describe steps in the selling process.

(15) The student knows the nature and scope of the hotel industry. The student is expected to:

(A) explain the development of the hotel industry;

(B) discuss the similarities and differences of various types of lodging;

(C) describe various divisions in a hotel business and their operations; and

(D) discuss energy management and environmental factors that influence the hotel industry.

§124.45. Restaurant Management (One-Half to Three Credits).

(a) General requirements. This course is recommended for students in Grades 10-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles and concepts of marketing and economics, as well as a variety of human resource skills, provide a foundation that allows students to make well-informed, responsible decisions. In the highly-competitive, international business environment, marketing functions and techniques must be adapted to meet the needs of specialized marketing industries, such as restaurant management. Through occupationally-specific applications, students will learn skills that make marketing a profitable and satisfying career.

(c) Knowledge and skills.

(1) The student knows business concepts and how business satisfies economic needs in a multicultural society and international economy. The student is expected to:

(A) categorize business activities as production, marketing, management, or finance;

(B) explain the interdependence of the restaurant industry with the economy;

(C) differentiate between franchise and/or entrepreneurship opportunities in the restaurant industry and other forms of business ownership;

(D) identify ways that businesses contribute to their community;

(E) explain the impact of multiculturalism on business activities; and

(F) evaluate laws and regulations governing the restaurant industry.

(2) The student knows the importance of marketing as well as the functions of marketing. The student is expected to:

(A) explain the marketing concept;

(B) describe each marketing function and how it contributes to the marketing concept;

(C) explain how each component of the marketing mix (such as selection of product offerings for the menu) contributes to a successful restaurant operation;

(D) explain the importance of target markets;

(E) describe advantages and disadvantages of market segmentation and mass marketing; and

(F) research trends and emerging technologies affecting the restaurant industry.

(3) The student applies math concepts in restaurant operations and management. The student is expected to:

(A) perform calculations involving money, time, space, materials, and data;

(B) interpret charts and graphs to make informed management decisions;

(C) make accurate estimates and projections (such as purchasing perishable items and determining peak and slow serving times); and

(D) read, calculate, and interpret data found in financial reports.

(4) The student integrates listening, reading, speaking, writing, and nonverbal communication skills effectively. The student is expected to:

(A) communicate effectively in a business setting; and

(B) use technology in receiving and sending business communication.

(5) The student knows how to use self-development techniques and interpersonal skills to accomplish management objectives. The student is expected to:

(A) identify and practice effective interpersonal and team-building skills involving situations with co-workers, management, and customer relations; and

(B) participate in leadership and career development activities (such as DECA and local chambers of commerce).

(6) The student knows the impact and value of diversity. The student is expected to:

(A) identify the effect of languages other than English on the restaurant industry;

(B) identify how cultural diversity affects restaurant management decisions; and

(C) discover legal responsibilities of diversity.

(7) The student knows that management is the process of achieving goals through the use of human resources, technology, and material resources. The student is expected to:

(A) demonstrate an understanding of the levels of management found in restaurant operations;

(B) compare and contrast management styles;

(C) identify effective recruitment, selection, training and development, and performance evaluation techniques;

(D) demonstrate how to train and monitor restaurant employees to ensure compliance with laws, regulations, and self-regulatory measures;

(E) model techniques to use in difficult customer relations situations;

(F) explain the role of professional organizations, trade associations, and labor unions in restaurant operations; and

(G) explain the importance of quality control (such as consistency and portion control).

(8) The student knows that marketing begins with a working knowledge of economic concepts. The student is expected to:

(A) use information about supply and demand to predict their influence on restaurant management decisions;

(B) explain the role profit plays in an economy;

(C) compare and contrast competitive restaurant operations; and

(D) explain the role productivity plays in the restaurant industry.

(9) The student knows that distribution channel members facilitate the movement of products. The student is expected to:

(A) identify channels of distribution for selected restaurant products; and

(B) analyze the impact of perishability on transportation, storage, product handling, and inventory control activities in the restaurant industry.

(10) The student knows that financial planning is necessary for the success and solvency of the restaurant operation. The student is expected to:

(A) identify sources of financial assistance;

(B) analyze financial records (such as budget, balance sheet, and income statement); and

(C) evaluate the impact of financial planning and credit on a restaurant's marketing and management decisions.

(11) The student knows the role of a marketing-information system. The student is expected to:

(A) identify benefits and limitations of marketing research;

(B) explain characteristics and purposes of an integrated information system; and

(C) use primary and/or secondary information to make restaurant management decisions.

(12) The student knows that pricing has policies, objectives, and strategies. The student is expected to:

(A) compare and contrast pricing policies;

(B) recommend appropriate pricing strategies for restaurant operations; and

(C) identify controllable and uncontrollable variables in a restaurant pricing situation.

(13) The student knows the elements and processes of product planning. The student is expected to:

(A) describe stages of new-product planning;

(B) identify stages of the product life cycle for new or existing products in the restaurant industry; and

(C) discuss the importance of diversifying a restaurant's offerings based on stages of the product life cycle.

(14) The student knows that successful restaurant managers or owners must develop, implement, and evaluate a promotional plan. The student is expected to:

(A) identify components of the promotional mix (such as advertising, visual merchandising, and personal selling);

(B) analyze promotional objectives, including a promotional budget and calendar;

(C) evaluate the image projected by the physical environment (such as facilities design, maintenance, and improvement);

(D) calculate and assess the cost-effectiveness of various media using advertising costs and budget information; and

(E) select activities that would encourage positive public relations.

(15) The student knows that purchasing occurs in a continuous cycle. The student is expected to:

(A) distinguish between buying for resale and buying for organization use; and

(B) select and evaluate suppliers and sources after identifying restaurant purchasing needs.

(16) The student knows that various types of risks impact restaurant operations. The student is expected to:

(A) categorize business risks as human, natural, and economic and recommends ways to control each type; and

(B) recommend and defend strategies for dealing with a restaurant's business risks.

(17) The student knows the role of selling in the restaurant industry. The student is expected to:

(A) give examples of how selling is used in various aspects of the restaurant industry;

(B) develop strategies for determining customer needs and wants; and

(C) analyze the impact of suggestion selling in restaurants.

(18) The student knows the important role each restaurant employee plays in providing exceptional customer service. The student is expected to:

(A) classify employee and management actions and attitudes that result in customer satisfaction; and

(B) describe how customer service and follow-up are major factors for success in restaurant operations and management.

(19) The student knows the nature and scope of the restaurant industry. The student is expected to:

(A) research career opportunities;

(B) use industry-specific terminology;

(C) analyze policies, procedures, and dress codes for restaurant operations; and

(D) distinguish between commercial and noncommercial restaurant operations.

(20) The student knows health and safety precautions in the restaurant industry. The student is expected to:

(A) identify housekeeping, maintenance, and sanitation activities that should be performed on a regular basis in restaurants;

(B) discuss safety responsibilities of restaurant management;

(C) explain first aid and emergency procedures; and

(D) research current and emerging trends in storage, refrigeration, and food handling.

§124.46. Services Marketing (One-Half to Three Credits).

(a) General requirements. This course is recommended for students in Grades 10-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles and concepts of marketing and economics, as well as a variety of human resource skills, provide a foundation that allows students to make well-informed, responsible decisions. In the highly-competitive, international business environment, marketing functions and techniques must be adapted to meet the needs of specialized marketing industries, such as services marketing. Through occupationally-specific applications, students will learn career-sustaining skills that make marketing a valuable asset in today's world.

(c) Knowledge and skills.

(1) The student knows business concepts and explains how business satisfies economic needs in an international economy. The student is expected to:

(A) relate the interdependence among production, marketing, management, and finance;

(B) explain the impact of an international economy on activities in service industries;

(C) describe advantages and disadvantages of various forms of business ownership found in services marketing; and

(D) understand the ramifications of business conduct.

(2) The student knows the importance of marketing as well as the functions of marketing. The student is expected to:

(A) explain the marketing concept;

(B) describe each marketing function and how it contributes to the marketing concept;

(C) explain how each component of the marketing mix contributes to service industries;

(D) explain the importance of target markets;

(E) describe advantages and disadvantages of market segmentation and mass marketing; and

(F) research trends and emerging technologies affecting services marketing.

(3) The student integrates listening, reading, speaking, writing, and nonverbal communication skills effectively. The student is expected to:

- (A) communicate effectively in a business setting; and
- (B) interpret and use a variety of nonverbal messages.

(4) The student knows how to use self-development techniques and interpersonal skills to accomplish services marketing objectives. The student is expected to:

- (A) identify and practice effective interpersonal and team-building skills involving situations with co-workers, managers, and customers; and
- (B) participate in leadership and career development activities (such as DECA and local chambers of commerce).

(5) The student knows that management is the process of achieving goals through the use of human resources, technology, and material resources. The student is expected to:

- (A) demonstrate an understanding of levels of management; and
- (B) compare and contrast management styles.

(6) The student knows the impact and value of diversity. The student is expected to:

- (A) identify the effect of languages other than English on the services marketer;
- (B) explain how cultural diversity affects how services are provided; and
- (C) identify how diversity affects the services industry.

(7) The student knows that marketing begins with a working knowledge of economic concepts. The student is expected to:

- (A) illustrate that services are products which satisfy our needs and wants and usually have monetary value; and
- (B) compare and contrast the roles of profit-oriented service businesses and not-for-profit organizations in the economy.

(8) The student knows that distribution channel members facilitate the availability of services. The student is expected to:

- (A) identify distribution activities performed by service providers; and
- (B) analyze distribution strategies used by service marketers.

(9) The student knows that financial planning is necessary for the service marketer's success and solvency. The student is expected to:

- (A) identify sources of financial assistance; and
- (B) explain the purpose of financial records (such as time records, budget, balance sheet, and income statement).

(10) The student knows the role of a marketing-information system. The student is expected to:

- (A) explain the characteristics and purposes of an integrated information system;
- (B) determine sources and types of information available for an information system; and

(C) describe components of the marketing research process in order to analyze demand, forecast sales, and make other decisions.

(11) The student knows that pricing has policies, objectives, and strategies. The student is expected to:

- (A) recommend appropriate pricing strategies for service industries;
- (B) explain positive or negative effects that various factors can have on the selling price; and
- (C) communicate differences among pricing structures for goods, services, and ideas.

(12) The student knows the elements and processes of services planning. The student is expected to:

- (A) establish the ratio between tangible and intangible elements of a service;
- (B) demonstrate how the intangibility ratio varies based on the nature of the service;
- (C) identify stages of the new service planning process; and
- (D) define the term "service mix."

(13) The student knows that successful service marketers must develop, implement, and evaluate a promotional plan. The student is expected to:

- (A) describe a promotional plan for a services marketer;
- (B) identify components of the image; and
- (C) explain the role of public relations in promoting a service business or organization.

(14) The student knows that purchasing occurs in a continuous cycle. The student is expected to:

- (A) describe the process of selecting suppliers and sources; and
- (B) analyze and discuss selection of goods and services based on a business's operational needs.

(15) The student knows that various types of risks impact business. The student is expected to:

- (A) categorize business risks as natural, human, or economic; and
- (B) explain methods a service business uses to control risks (such as surveillance and safety training).

(16) The student knows the role of selling in a private enterprise. The student is expected to:

- (A) discuss how selling is the basis for economic activity and its special role in services marketing;
- (B) describe steps in the selling process; and
- (C) analyze how customers apply the decision-making process for a variety of services.

(17) The student knows the important role each employee plays in providing exceptional customer service. The student is expected to:

(A) describe how customer service and follow-up are major factors for success in services marketing; and

(B) prescribe how to improve service using employee orientation, training, and professional development.

§124.47. Travel and Tourism Marketing (One-Half to Three Credits).

(a) General requirements. This course is recommended for students in Grades 10-12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles and concepts of marketing, as well as a variety of human resource skills, provide a foundation that allows students to make well-informed, responsible decisions. In the highly-competitive, international business environment, marketing functions and techniques must be adapted to meet the needs of specialized marketing industries, such as travel and tourism marketing. Through occupationally-specific applications, students will learn skills that make marketing a profitable and satisfying career.

(c) Knowledge and skills.

(1) The student knows business concepts and explains how business satisfies economic needs. The student is expected to:

(A) categorize business activities as production, marketing, management, or finance;

(B) explain the interdependence each business activity has with marketing; and

(C) understand the ramifications of business conduct.

(2) The student knows the importance of marketing as well as the functions of marketing. The student is expected to:

(A) explain the marketing concept;

(B) describe each marketing function and how it contributes to the marketing concept;

(C) explain how each component of the marketing mix contributes to successful marketing;

(D) explain the importance of target markets;

(E) describe advantages and disadvantages of market segmentation and mass marketing; and

(F) research trends and emerging technologies affecting travel and tourism marketing.

(3) The student knows how to use self-development techniques and interpersonal skills to accomplish marketing objectives. The student is expected to:

(A) identify and practice effective interpersonal and team-building skills with co-workers, managers, and customers; and

(B) participate in leadership and career development activities (such as DECA and local chambers of commerce).

(4) The student knows the impact and value of diversity. The student is expected to:

(A) identify the effect of languages other than English on the travel and tourism industry;

(B) explain the impact of multiculturalism and multi-generationalism on travel and tourism business activities; and

(C) identify how diversity affects travel and tourism marketing decisions.

(5) The student knows that distribution channel members facilitate the movement of products. The student is expected to:

(A) identify channels of distribution for selected products in the travel and tourism industry; and

(B) describe activities of each channel member.

(6) The student knows that financial planning is necessary for the marketer's success and solvency. The student is expected to:

(A) identify sources of financial assistance; and

(B) explain the purpose of financial records (such as budget, balance sheet, and income statement).

(7) The student knows the role of a marketing-information system (MIS). The student is expected to:

(A) explain characteristics and purposes of a MIS;

(B) identify benefits and limitations of marketing research;

(C) research printed and technological resources to identify and select products and services; and

(D) access informational and transactional functions of computerized systems.

(8) The student knows that pricing has policies, objectives, and strategies. The student is expected to:

(A) compare and contrast pricing policies; and

(B) analyze the price of a product.

(9) The student knows the elements and processes of product planning. The student is expected to:

(A) describe stages of new-product planning;

(B) define the term "product mix;" and

(C) identify stages of the product life cycle for new or existing travel and tourism products.

(10) The student knows that successful marketers must develop, implement, and evaluate a promotional plan. The student is expected to:

(A) identify components of the promotional mix (such as advertising, visual merchandising, and personal selling); and

(B) analyze a promotional plan for effectiveness.

(11) The student knows that purchasing occurs as steps in a continuous cycle. The student is expected to:

(A) distinguish between buying for resale and buying for organization use; and

(B) explain the importance of identifying needs as the first step of the purchasing process.

(12) The student knows that various types of risks impact business. The student is expected to:

(A) categorize business risks as natural, human, or economic; and

(B) explain methods a travel and tourism business uses to control risks.

(13) The student knows the role of selling in a private enterprise. The student is expected to:

(A) explain how selling impacts the travel and tourism industry; and

(B) describe steps in the selling process.

(14) The student knows the nature and scope of the travel and tourism industry. The student is expected to:

(A) discuss the growth of travel as an industry in the marketplace;

(B) list ways government entities promote and regulate the travel industry;

(C) discuss how geography and history influence the travel industry;

(D) describe categories of travelers and their motivations, needs, and expectations (MNEs); and

(E) explore international travel issues.

(15) The student knows transportation and accommodation products. The student is expected to:

(A) list factors that influence air travel services;

(B) discuss surface travel industries (such as railroad, motorcoach, car rental, and mass transit systems);

(C) discuss types of cruise packages; and

(D) compare and contrast the MNEs of lodging customers.

(16) The student knows travel and tourism products and services. The student is expected to:

(A) determine what attracts travelers to different destinations;

(B) explain how the travel industry packages and sells recreation; and

(C) discuss the tour package as a product.

(17) The student knows the nature and scope of business and professional travel. The student is expected to:

(A) discuss the importance of the business traveler to the industry; and

(B) categorize the where, what, and why of meetings, conventions, and incentive travel.

(18) The student knows the role of the travel agency. The student is expected to:

(A) describe the relationship of a travel agency with customers and suppliers;

(B) describe types of travel agencies (such as commercial and leisure); and

(C) compare and contrast product-oriented and consumer-oriented marketing.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 15, 1997.

TRD-9706466

Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

Effective date: September 1, 1998

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For further information, please call: (512) 463-9701



Subchapter F. Research, High School

19 TAC §124.61, §124.62

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§124.61. Implementation of Texas Essential Knowledge and Skills for Marketing Education, Research, High School.

The provisions of this chapter shall supersede §75.86 of this title (relating to Marketing Education) beginning September 1, 1998.

§124.62. Marketing Education Independent Study (One-Half to One Credit).

(a) General requirements. The prerequisite for this course is completion of at least three courses in a marketing coherent sequence. This course is recommended for students in Grade 12.

(b) Introduction.

(1) Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing-information management, pricing, product planning, promotion, purchasing, risk management, and selling skills needed to help customers make satisfying buying decisions and to solve marketing problems. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

(2) The principles of business and marketing, the concepts of economics and free enterprise, and the understanding of human

resource skills that an effective marketer must possess provide the foundation for the independent study course. Understanding these concepts allows students to know the interrelationship between business and marketing.

(c) Knowledge and skills.

(1) The student utilizes knowledge and skills in math, science, English language arts, and social studies. The student is expected to:

(A) select an independent study project for personal enrichment and professional development;

(B) collaborate with an interdisciplinary team to develop an independent study project;

(C) identify community, state, national or international issues to select an independent study project;

(D) conduct an independent study project under the supervision of a mentor;

(E) use scientific methods of investigation;

(F) apply statistical concepts to analyze data, evaluate results, and draw conclusions;

(G) compile findings into a formal report; and

(H) present the project to an appropriate audience using a variety of technologies.

(2) The student demonstrates effective communication and interpersonal skills in conducting and reporting the project. The student is expected to:

(A) utilize communication and interpersonal skills to accomplish project goals;

(B) demonstrate professional conduct in completing all aspects of the project; and

(C) utilize a variety of resources, technology, and reporting formats (such as written, visual, graphical, and oral presentations) to communicate the project to a review panel that includes professionals in the field of marketing.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Chapter 125. Texas Essential Knowledge and Skills for Trade and Industrial Education

The Texas Education Agency (TEA) adopts new §§125.1-125.7, 125.21-125.30, 125.41-125.47, 125.61-125.65, 125.71-125.80, 125.91-125.99, 125.111-125.115, 125.121,

and 125.122, concerning trade and industrial education, are adopted with changes to the proposed text as published in the February 28, 1997, issue of the *Texas Register* (22 TexReg 2259). The new sections establish the essential knowledge and skills for the following seven systems in trade and industrial education: (1) transportation; (2) construction-maintenance; (3) electrical-electronic; (4) metal technology; (5) industrial and manufacturing; (6) communication and media; and (7) personal and protective services. The new sections are necessary to ensure that students throughout the state have access to the enrichment curricula. The provisions of these sections shall supersede §75.88 of this title (relating to Trade and Industrial Education) beginning September 1, 1998.

The Texas Education Code organizes the required curriculum into two types: the foundation curriculum and the enrichment curriculum. As specified in legislation, the essential knowledge and skills of the enrichment curriculum serve as guidelines to school districts in providing instruction. In doing so, some districts may incur costs for professional development and equipment. These potential costs cannot be estimated.

Members of the public expressed concern about adoption of a certificate of initial mastery. Neither the Texas essential knowledge and skills (TEKS) nor any other rule contains reference to, promotes, or establishes a certificate of initial mastery.

The following changes have been made since the sections were proposed.

Numerous editorial changes were made throughout the sections to clarify and simplify language.

Since filing of the proposed sections, legal counsel has advised that since the sections serve as guidelines for instruction, language containing or implying mandates on school districts should be stricken and replaced with more permissive language where necessary. The term "shall" appeared in statements regarding the date of implementation of the provisions for each subchapter.

The term "capstone" in career and technology education courses has been replaced with the term "independent study to clarify language." The career and technology education courses consist of an in-depth study of a business/industry that is of particular interest to a student.

Several individuals who testified at the public hearing held on March 4, 1997, stated that the career and technology education essential knowledge and skills contain references to the skills and competencies identified by the Secretary's Commission on Achieving Necessary Skills (SCANS) and thus reflect federal influence. TEA staff has carefully reviewed the sections being adopted for evidence of SCANS skills and competencies. The sections being adopted do not contain specific references to SCANS; however, the sections do contain skills and competencies that are among those recommended by the commission. The curriculum writing teams, members of the SBOE Review Committee, and others who had suggested strengthening the Texas essential knowledge and skills (TEKS) drafts expressed a strong belief that some skills and competencies identified by the SCANS commission are an essential part of an effective curriculum.

The following changes have been made since the sections were proposed.

In subsection (c)(1)(C), of §§125.2-125.7, 125.22-125.30, 125.42-125.47, 125.62-125.65, 125.72-125.80, 125.92-125.99, and 125.112-125.115, the language has been amended to read "identify employer's expectations and appropriate work habits" to further clarify the student expectation statement.

In §125.122 (relating to Trade and Industrial Education Independent Study), the term "interpersonal" in subsection (c)(3) was removed from the phrase "deliver the project's final product(s) that demonstrates the use of a variety of resources, technologies, interpersonal and communication skills" to make the knowledge and skills taught in this course consistent with those in other courses in the subject area.

The following general comments have been received regarding adoption of the new sections.

Issue: grade placement of courses.

Comment. An individual commented that essential knowledge and skills were job specific and not obtainable in high school.

Agency Response. No changes to the proposed sections are recommended.

Issue: add knowledge and skills.

Comment. An individual requested that a performance description that includes a discussion of discipline, initiative, ethical standards, innovation, and creativity development be added to all trade and industrial education courses.

Agency Response. The requested language will be included in appropriate curriculum frameworks developed for knowledge and skills. No changes to the proposed sections are recommended.

Comment. An individual requested that a performance description be added to all trade and industrial education courses that is an application of the knowledge and skills to ensure that all work is performed to the highest quality standards and in a timely and professional manner.

Agency Response. The requested change will be included in appropriate curriculum frameworks developed for knowledge and skills. No changes to the proposed sections are recommended.

Comment. An individual requested that emphasis on environmental safety be added to the proposed sections.

Agency Response. The requested emphasis was made to subparagraph (B) for each of the systems in the sections. No changes to the proposed sections are recommended.

Comment. An individual commented that knowledge and skills should be revised for all transportation service systems by adding emphasis to air and noise pollution and the importance of proper handling of hazardous material.

Agency Response. The requested language will be included in appropriate curriculum frameworks developed for knowledge and skills. No changes to the proposed sections are recommended.

Comment. An individual commented that knowledge and skill statements should be added to emphasize safety, tools, and materials for each of the construction systems.

Agency Response. The requested language will be included in appropriate curriculum frameworks developed for knowledge and skills. No changes to the proposed sections are recommended.

Comment. An individual requested that an additional performance description be added to the electrical/electronic system to address application and future technology trends.

Agency Response. The requested language will be included in appropriate curriculum frameworks developed for knowledge and skills. No changes to the proposed sections are recommended.

Subchapter A. Transportation Systems, High School

19 TAC §§125.1–125.7

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§125.1. Implementation of Texas Essential Knowledge and Skills for Trade and Industrial Education, Transportation Systems, High School.

The provisions of Chapter 125 shall supersede §75.88 of this title (relating to Trade and Industrial Education) beginning September 1, 1998.

§125.2. Small Engine Services.

(a) General requirements. Small engine services include knowledge of the function, diagnosis, and service of the systems and components of small engines. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Transportation Service Careers (one-half to one credit), Small Engine Repair (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in transportation systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for the field of small engine service;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety practices in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of small engine services. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete repair orders and related paperwork;

(C) estimate parts and labor costs on repair orders; and

(D) read and interpret appropriate schematics, charts, and service-repair manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of small engine services. The student is expected to:

(A) identify the types of small engines; and

(B) explain the function of the small engines and their components.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in small engine services. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in the service and repair of small engines;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in servicing small engines; and

(C) demonstrate knowledge of new and emerging technologies that may affect the service of small engines.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) troubleshoot and repair small engines;

(B) perform preventive maintenance on small engines;

(C) select the proper fuel, prepare the fuel mixtures, and refuel small engines; and

(D) apply the essential knowledge and skills in small engines to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.3. *Marine Services.*

(a) General requirements. Marine services include knowledge of the function, diagnosis, and service of the systems and components of marine propulsion and related systems. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Transportation Service Careers (one-half to one credit), Marine Related Occupations (two to three credits), Marine Engine Repair (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in transportation systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for the field of marine services;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of marine services. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete repair orders and related paperwork;

(C) estimate parts and labor costs on marine service-repair orders; and

(D) read and interpret appropriate schematics, charts, and service-repair manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of marine services. The student is expected to:

(A) identify the use and application of the marine outboard, marine inboard-outboard, and marine inboard engines and components;

(B) identify the basic components of marine electrical-electronic systems; and

(C) demonstrate knowledge of marine propulsion designs and applications.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in marine services. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in the servicing of marine systems.

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in servicing marine systems; and

(C) demonstrate knowledge of new and emerging technologies that may affect the service of marine engines.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) identify and service marine engines, related systems, and components;

(B) service all forms of marine fuel systems; and

(C) apply the essential knowledge and skills in marine services to work-based learning experiences, including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training programs.

§125.4. Aircraft Services.

(a) General requirements. Aircraft services include knowledge of the function, diagnosis, and service of the electrical/electronic, hydraulic, pneumatic, air-frame, mechanical, and power plant components of aircraft as governed by federal aviation regulations. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Transportation Service Careers (one-half to one credit), Aircraft Mechanics (two to three credits), Aerospace Aviation Education (one-half to one credit), Power Technology (one to two credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in transportation systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements,

and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for the field of aircraft services;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of aircraft services. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) complete repair orders and related paperwork;

(C) estimate parts and labor costs on aircraft repair orders; and

(D) read and interpret appropriate schematics, charts, graphs, drawings, blueprints, service- repair manuals and bulletins, and federal aviation regulations.

(3) The student knows the concepts and skills that form the core knowledge of aircraft services. The student is expected to:

(A) demonstrate knowledge of aviation regulations that govern the construction, maintenance, and service of aircraft;

(B) demonstrate knowledge of aircraft navigation and electronic communication systems;

(C) contrast subsonic and supersonic flight;

(D) demonstrate knowledge of air-frame construction and repair methods and techniques;

(E) demonstrate knowledge of aircraft assembly and rigging procedures; and

(F) demonstrate knowledge of the fundamentals, service, and maintenance of aircraft engines, engine systems, and components.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in aircraft services. The student is expected to:

(A) identify and select basic materials and processes used in aircraft maintenance;

(B) safely use hand and power tools and equipment commonly employed in the maintenance and repair of aircraft;

(C) properly handle and dispose of humanly and/or environmentally hazardous materials used in maintaining and servicing aircraft; and

(D) demonstrate knowledge of new and emerging aircraft technologies.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) accurately calculate aircraft weight and balance;

(B) predict flight time and fuel consumption;

(C) predict wind vector, drift, headings, and speed from meteorological information;

(D) perform required aircraft and engine inspections;

(E) service and repair aircraft hydraulic and landing gear systems and components; and

(F) apply the essential knowledge and skills in aircraft services to work-based learning experiences, including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.5. Automotive Services.

(a) General requirements. Automotive services include knowledge of the function of the major automotive systems and the principles of diagnosing and servicing these systems. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Transportation Service Careers (one-half to one credit), Automotive Technician (two to three credits), Automotive Specialization (one to two credits), Transportation Service Technician (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in transportation systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for the field of automotive services;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of automotive services. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete repair orders and related paperwork;

(C) estimate parts and labor costs on repair orders; and

(D) read and interpret appropriate schematics, charts, diagrams, graphs, parts catalogs, and service-repair manuals and bulletins.

(3) The student knows the concepts and skills that form the core of knowledge of automotive services. The student is expected to:

(A) describe the function of the major components of powered vehicles; and

(B) describe the function of the automotive chassis components.

(4) The student knows the functions and applications of the tools, equipment, technologies, and materials used in automotive services. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in the maintenance and repair of vehicles;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in maintaining and servicing vehicles; and

(C) demonstrate knowledge of new and emerging automotive technologies.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) order, stock, and locate automotive parts;

(B) analyze malfunctions and remove, repair, and replace automotive engine components;

(C) service and repair automotive propulsion systems;

(D) test, diagnose, service, and repair automotive electrical/electronic systems;

(E) diagnose, service, and repair automotive air-conditioning and heating systems;

(F) inspect, service, and repair automotive chassis and power train components and systems; and

(G) apply the essential knowledge and skills in automotive services to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.6. Diesel Services.

(a) General requirements. Diesel services include knowledge of the function, diagnosis, and service of major diesel systems. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Transportation Service Careers (one-half to one credit), Diesel Mechanics (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in transportation systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows and applies the laws and principles of diesel systems and components. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for the field of diesel services;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of diesel services. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete repair orders and related paperwork;

(C) estimate parts and labor costs on repair orders; and

(D) read and interpret appropriate schematics, charts, diagrams, graphs, parts catalogs, and service-repair manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of diesel services. The student is expected to explain the basic functions of the components of the diesel engine.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in diesel services. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in diesel mechanical maintenance and repair;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in maintaining and servicing diesel engine, fuel, lubricating, and hydraulic systems; and

(C) demonstrate knowledge of new and emerging diesel technologies.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) remove, repair, and replace diesel engine components;

(B) analyze, service, and repair fuel-injection systems, engine cooling systems, and air-intake and exhaust systems;

(C) service and repair vehicle air-conditioning and heating systems;

(D) test, diagnose, service, and repair diesel, electrical, electronic, and emission control systems; and

(E) apply the essential knowledge and skills in diesel services to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training programs.

§125.7. Collision Repair and Refinishing Services.

(a) General requirements. Collision repair and refinishing services include knowledge of the processes, technologies, and materials utilized in the reconstruction and/or alteration of vehicles. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Transportation Services (one-half to one credit), Automotive Collision Repair and Refinishing Technology (two to three credits), Auto Detailing (one-half to one credit), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in transportation systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce,

apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for the field of collision repair and refinishing technologies;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of collision repair and refinishing services. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete collision repair and refinishing technology orders and related paperwork;

(C) read and interpret appropriate schematics, charts, diagrams, graphs, parts catalogs, and service-repair manuals and bulletins; and

(D) estimate parts and labor costs on collision repair and refinishing technology orders.

(3) The student knows the concepts and skills that form the core knowledge of collision repair and refinishing services. The student is expected to:

(A) identify the types of repair procedures for the different types of vehicle body constructions; and

(B) demonstrate the proper preparation, application, and refinishing of paint products, decals, and adhesives.

(4) The student knows the function and application of tools, equipment, technologies, and materials used in collision repair and refinishing services. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in collision repair and refinishing technologies;

(B) demonstrate the proper techniques for the application of welding, cutting, brazing, and soldering processes;

(C) properly handle and dispose of humanly and/or environmentally hazardous materials used in collision repair and refinishing technologies; and

(D) demonstrate knowledge of new and emerging collision repair and refinishing technologies.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) inspect, straighten, and align vehicle frames and replace any body units;

(B) inspect and repair damaged sheet metal panels, fiberglass, and synthetic body parts;

(C) inspect, repair, and adjust vehicle body parts;

(D) remove and install vehicle glass and accompanying mechanical and automated parts;

(E) inspect, replace, and repair trim parts and vehicle seats; and

(F) apply the essential knowledge and skills in collision repair and refinishing services to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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For further information, please call: (512) 463-9701



Subchapter B. Construction-Maintenance Systems, High School

19 TAC §§125.21–125.30

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§125.21. Implementation of Texas Essential Knowledge and Skills for Trade and Industrial Education, Construction-Maintenance Systems, High School.

The provisions of Chapter 125 shall supersede §75.88 of this title (relating to Trade and Industrial Education) beginning September 1, 1998.

§125.22. Heating, Ventilation, Air-Conditioning, and Refrigeration.

(a) General requirements. Heating, ventilation, air-conditioning, and refrigeration (HVAC-R) includes knowledge of the design, operation, installation, diagnosis, and service of heating, ventilation, air-conditioning, and refrigeration (HVAC-R) systems. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Construction Trades

(one-half to one credit), Heating, Ventilation, Air-Conditioning and Refrigeration (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in construction-maintenance systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for the fields of heating, ventilation, air-conditioning, and refrigeration systems;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of heating, ventilation, air-conditioning, and refrigeration. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete installation and repair work orders and related paperwork;

(C) estimate supplies, materials, and labor costs on installation and repair work orders; and

(D) read and interpret appropriate schematics, blueprints, drawings, charts, diagrams, and service manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of heating, ventilation, air-conditioning, and refrigeration. The student is expected to:

(A) demonstrate knowledge of basic electrical, electronic, and pneumatic theory and applications;

(B) demonstrate knowledge of the physics and operation of the basic refrigeration system;

(C) identify the ventilation requirements of air-conditioning, refrigeration, ventilation, and heating systems; and

(D) identify the effect of atmospheric conditions on HVAC-R systems.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in heating, ventilation, air-conditioning, and refrigeration. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in the repair and installation of air-conditioning, refrigeration, ventilation, and heating systems;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in repairing and installing air-conditioning, refrigeration, ventilation, and heating systems; and

(C) demonstrate knowledge of new and emerging technologies that may affect the installation and service of air-conditioning, refrigeration, ventilation, and heating systems.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) inspect, service, and repair electric motors and electrical systems;

(B) inspect, service, and repair air-conditioning, refrigeration, ventilation, and heating controls, circuits, and instruments;

(C) install, service, and repair heating and humidifying systems, cooling and dehumidifying systems, distributing and cleaning systems, and complete air-conditioning systems;

(D) inspect, service, and repair automotive air-conditioning and heating systems; and

(E) apply the essential knowledge and skills in HVAC-R to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.23. *Masonry Trades.*

(a) General requirements. Masonry trades include knowledge and application of methods, equipment, and materials utilizing masonry products in construction. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Construction Trades (one-half to one credit), Bricklaying/Stone Masonry (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in construction-maintenance systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety

of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for the masonry trades;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of masonry trades. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work and materials orders and related paperwork;

(C) estimate supplies, materials and labor costs; and

(D) read and interpret blueprints, drawings, charts, instructions, and diagrams.

(3) The student knows the concepts and skills that form the core knowledge of masonry trades. The student is expected to:

(A) demonstrate knowledge of the manufacturing processes of brick, masonry products, and cement; and

(B) demonstrate knowledge of the preparation and uses of masonry products, mortar types, ingredients, and admixtures.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in masonry trades. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in the masonry trade;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in masonry trades; and

(C) demonstrate knowledge of new and emerging technologies that may affect the masonry trades.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) construct a simple masonry wall, fireplace, block masonry wall, and arches;

(B) identify and utilize standard brick and stone masonry courses, bonds, and joints;

(C) prepare stone and masonry products for installation, cuts, splits, and templates;

(D) properly clean tools and walls; and

(E) apply the essential knowledge and skills in masonry trades to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.24. Building Carpentry.

(a) General requirements. Building carpentry includes knowledge of and ability to apply the construction processes of foundations, framing, roofing, and exterior and interior finishing. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Construction Trades (one-half to one credit), Building Trades (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in construction-maintenance systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for the field of building carpentry;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of building carpentry. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work and materials orders and related paperwork;

(C) estimate supplies, materials, and labor costs; and

(D) read and interpret blueprints, drawings, charts, instructions, and diagrams.

(3) The student knows the concepts and skills that form the core knowledge of building carpentry. The student is expected to:

(A) identify the uses of carpentry hardware and fasteners;

(B) demonstrate knowledge of fire ratings in construction materials; and

(C) demonstrate knowledge of the appropriate building codes that apply to residential and commercial construction.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in construction carpentry. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in carpentry;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in carpentry;

(C) safely use the different types of scaffolding employed in building carpentry; and

(D) demonstrate knowledge of new and emerging technologies that may affect construction carpentry.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) square, measure, and cut materials to specified dimensions;

(B) rig and handle different types of loads and use the proper hand signals at the job site;

(C) utilize framing techniques for walls, floors, ceilings, rafters, structural timbers, stairs, trusses, and fireproof metal studs;

(D) demonstrate the proper principles of drywall application;

(E) install doors, windows, interior/exterior wall covering, and trim; and

(F) apply the essential knowledge and skills in building carpentry to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.25. Concrete Laying and Finishing.

(a) General requirements. Concrete laying and finishing includes knowledge of the methods, equipment, and materials utilized in concrete-based construction, finishing, and repair. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Construction Trades (one-half to one credit), Concrete Laying and Finishing (two to three credits),

cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in construction-maintenance systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for the field of concrete laying and finishing;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of concrete laying and finishing. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work and materials orders and related paperwork;

(C) estimate supplies, materials, and labor costs; and

(D) read and interpret blueprints, drawings, charts, instructions, and diagrams.

(3) The student knows the concepts and skills that form the core knowledge of concrete laying and finishing. The student is expected to:

(A) demonstrate knowledge of soil and site preparation;

(B) properly use, care for, and clean forms; and

(C) mold expansion joints and edges.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in concrete laying and finishing. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in concrete laying and finishing;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in concrete laying and finishing; and

(C) demonstrate knowledge of new and emerging technologies that may affect concrete laying and finishing.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) properly use reinforcement materials;

(B) mix cement/concrete to specifications;

(C) place and spread concrete to specified depth and workable consistency;

(D) work, level, smooth, and shape concrete surfaces;

(E) add stone, chips, coloring, etc.; as specified, to create unique surfaces;

(F) finish steps, curbs, walks, walls, and special designs as directed;

(G) remove undesirable spots and patches with new cement or epoxy compounds; and

(H) apply the essential knowledge and skills in concrete laying and finishing to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training programs.

§125.26. Building Electrical Trades.

(a) General requirements. Building electrical trades includes knowledge and application of basic electrical theory, principles, and materials as related to the construction process. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Construction Careers (one-half to one credit), Building Trades (two to three credits), Electrical Trades (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in construction-maintenance systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for the building electrical trades;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of building electrical trades. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully completes repair and installation work orders and related paperwork;

(C) estimate supplies, materials, and labor costs on installation and repair work orders; and

(D) read and interpret appropriate schematics, blueprints, drawings, charts, diagrams, and service manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of building electrical trades. The student is expected to:

(A) demonstrate knowledge of the theory of electricity;

(B) demonstrate knowledge of the process of generating and distributing electrical power and the role of the electric utility company; and

(C) identify the differences in residential, commercial, and industrial electrical wiring requirements.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in building electrical trades. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in the building electrical trades;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in the building electrical trades; and

(C) demonstrate knowledge of new and emerging technologies that may affect the building electrical trades.

(5) The student applies the concepts and skills of the trade in simulated and actual work situations. The student is expected to:

(A) identify and apply electrical codes regulating residential, commercial, and industrial electrical construction;

(B) plan a residential electrical service entrance and individual and general purpose branch circuits;

(C) install electrical switch and outlet boxes, a residential service entrance, power panels, power feeders, internal and external light fixtures, receptacles, and conduit;

(D) demonstrate the proper techniques for sizing and installing various conductors and connectors;

(E) connect and disconnect electric motors and controls;

(F) troubleshoot residential, commercial, and industrial wiring and other electrical problems; and

(G) apply the essential knowledge and skills in building electrical trades to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.27. Mill and Cabinetmaking.

(a) General requirements. Mill and cabinetmaking includes knowledge and application of the concepts of design and construction of mill and cabinet-work products. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Construction Careers (one-half to one credit), Building Trades (two to three credits), Mill and Cabinetmaking (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in construction-maintenance systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for mill and cabinetmaking;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of mill and cabinetmaking. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate supplies, materials, and labor costs for work orders;

(D) apply the principles of mathematics for accurate linear and metric measurements; and

(E) read and interpret appropriate blueprints, drawings, charts, and diagrams.

(3) The student knows the concepts and skills that form the core knowledge of mill and cabinetmaking. The student is expected to:

(A) demonstrate knowledge of cabinetmaking design;

(B) demonstrate knowledge of the use of woods, fasteners, hardware, glass, and mirrors; and

(C) demonstrate knowledge of the industrial processes and procedures used in mill and cabinetmaking.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in mill and cabinetmaking. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in mill and cabinetmaking;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in mill and cabinetmaking;

(C) utilize the proper procedures in sawing, planing, shaping, turning, boring, mortising, and sanding various types of woods;

(D) demonstrate knowledge of numerically-controlled and computer-controlled production devices; and

(E) demonstrate knowledge of new and emerging technologies that may affect mill and cabinetmaking.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) identify and construct the various joints utilized in cabinetmaking;

(B) utilize the proper procedures in gluing, clamping, laminating, veneering, and inlaying;

(C) utilize the proper procedures to construct and install cabinet doors, furniture doors, drawer guides, shelves, cabinet interiors, legs, posts, table tops, and cabinet tops;

(D) utilize proper finishing techniques; and

(E) apply the essential knowledge and skills in mill and cabinetmaking to work-based learning experiences including, but

not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.28. Painting and Decorating.

(a) General requirements. Painting and decorating includes knowledge of the processes, techniques, and materials utilized in the application and/or alteration of interior and exterior finishes. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Construction Careers (one-half to one credit), Painting and Decorating (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in construction-maintenance systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for painting and decorating;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of painting and decorating. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate supplies, materials, and labor costs for work orders;

(D) apply the principles of mathematics to the accurate measurement of paint, wallpaper, and other materials required in a work order; and

(E) read and interpret appropriate drawings, charts, and diagrams.

(3) The student knows the concepts and skills that form the core knowledge of painting and decorating. The student is expected to:

(A) apply the basics of color, including psychology, selection, and styling;

(B) mix and match paints to the desired color; and

(C) identify paint bases and matching thinners.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in painting and decorating. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in painting and decorating;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in painting and decorating; and

(C) demonstrate knowledge of new and emerging technologies that may affect painting and decorating.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) properly prepare various kinds of surfaces;

(B) apply paint primers and finish coats to various types of surfaces with hand and power tools;

(C) prepare and apply wallpaper;

(D) properly clean work areas, tools, and equipment; and

(E) apply the essential knowledge and skills in painting and decorating to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.29. Piping Trades and Plumbing.

(a) General requirements. Piping trades and plumbing include knowledge of the processes, techniques, and materials related to fluid and gas delivery and removal systems. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Construction Trades (one-half to one credit), Piping Trades and Plumbing (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in construction-maintenance systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports

integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for the piping trades and plumbing;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of piping trades and plumbing. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete repair and installation work orders and related paperwork;

(C) estimate supplies, materials, and labor costs on installation and repair work orders; and

(D) read and interpret appropriate blueprints, drawings, specifications, diagrams.

(3) The student knows the concepts and skills that form the core knowledge of piping trades and plumbing. The student is expected to:

(A) demonstrate knowledge of the installation and maintenance of high and low pressure process piping; and

(B) demonstrate knowledge of the excavation methods needed for the installation of certain piping systems.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in piping trades and plumbing. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in piping trades and plumbing;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in piping trades and plumbing; and

(C) demonstrate knowledge of new and emerging technologies that may affect piping trades and plumbing.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) develop working drawings and sketches for the assigned task;

(B) fabricate, assemble, install, and maintain metallic and nonmetallic pipe and piping systems;

(C) install and maintain pneumatic and hydraulic controls and piping;

(D) install plumbing fixtures;

(E) locate, diagnose, and repair plumbing malfunctions;

(F) demonstrate proper grading techniques for sanitary systems; and

(G) apply the essential knowledge and skills in piping trades and plumbing to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.30. Building Maintenance.

(a) General requirements. Building maintenance includes knowledge of the technologies and materials required to diagnose, service, and repair building components, systems, and environments. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Construction Trades (one-half to one credit), Building Maintenance (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in construction-maintenance systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for building maintenance;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of building maintenance. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete repair and installation work orders and related paperwork;

(C) estimate and order supplies and materials required for maintenance orders; and

(D) read and interpret drawings, instructions, and diagrams.

(3) The student knows the concepts and skills that form the core knowledge of building maintenance. The student is expected to:

(A) demonstrate knowledge of the building codes that apply to maintenance repair;

(B) recognize and properly use different kinds and sizes of pipe and pipe fittings; and

(C) identify and repair electrical malfunctions.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in building maintenance. The student is expected to:

(A) select the proper tools and materials to perform a building maintenance work order;

(B) safely use hand and power tools and equipment commonly employed in building maintenance;

(C) properly handle and dispose of humanly and/or environmentally hazardous materials used in building maintenance;

(D) selects, safely use, and store insecticides and equipment used to control insects and rodents; and

(E) demonstrate knowledge of new and emerging technologies that may affect the field of building maintenance.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) perform building maintenance plumbing;

(B) repair cracks and defects in concrete surfaces;

(C) prepare and apply paint to surfaces;

(D) prepare, apply, and maintain various types of floor coverings;

(E) maintain heating, ventilation, air-conditioning, and refrigeration (HVAC-R) systems;

(F) cut, repair, and install glass and apply glazing compound; and

(G) apply the essential knowledge and skills in building maintenance to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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For further information, please call: (512) 463-9701



Subchapter C. Electrical-Electronics Systems, High School

19 TAC §§125.41–125.47

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§125.41. Implementation of Texas Essential Knowledge and Skills for Trade and Industrial Education, Electrical-Electronics Systems, High School.

The provisions of Chapter 125 shall supersede §75.88 of this title (relating to Trade and Industrial Education) beginning September 1, 1998.

§125.42. Business Machine Repair Services Category.

(a) General requirements. Business machine repair services include knowledge of the mechanical, electrical, and electronic principles related to the diagnosis, service, and repair of business machines. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Electrical/Electronic Careers (one-half to one credit), Business Machine Repair (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in electrical-electronics systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for business machine repair services;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of business machine repair services. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete repair and installation work orders and related paperwork;

(C) estimate supplies, materials, and labor costs on installation, maintenance, and repair work orders; and

(D) read and interpret appropriate schematics, drawings, charts, diagrams, and service manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of business machine repair services. The student is expected to:

(A) demonstrate knowledge of the basic operational features of business machines; and

(B) demonstrate knowledge of basic computer terminology, components, and operation.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in business machine repair services. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in business machine repair services;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in business machine repair services; and

(C) demonstrate knowledge of new and emerging technologies that may affect business machine repair services.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) accurately use electrical, electronic, and mechanical measuring and testing equipment;

(B) calculate and measure resistance, current, voltage, and power in series and parallel circuits;

(C) perform routine installations, inspections, adjustments, and maintenance of business machines;

(D) use appropriate troubleshooting procedures and techniques to service and repair business machines; and

(E) apply essential knowledge and skills in business machine repair services to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training programs.

§125.43. *Major Appliance Technology Services.*

(a) General requirements. Major appliance technology services include knowledge of the mechanical, electrical, and electronic principles related to the diagnosis, service, and repair of major appliances. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Electrical/ Electronic Careers (one-half to one credit), Major Appliance Technology (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in electrical-electronics systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for major appliance technology services;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of major appliance technology services. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete repair and installation work orders and related paperwork;

(C) estimate supplies, materials, and labor costs on installation, maintenance, and repair work orders; and

(D) read and interpret appropriate schematics, drawings, charts, diagrams, service manuals, and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of major appliance technology services. The student is expected to:

(A) demonstrate knowledge of the basic theories of magnetism and electricity;

(B) demonstrate knowledge of the electromagnetic fundamentals of generators, transformers, and motors;

(C) demonstrate knowledge of the types, usage, and parts of electric motors;

(D) perform installation and repair procedures on major appliances; and

(E) demonstrate knowledge of warranty disposition of defective parts and equipment.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in major appliance technology services. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in major appliance technology service;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in major appliance technology services; and

(C) demonstrate knowledge of new and emerging technologies that may affect major appliance technology services.

(5) The student applies the concepts and skills of the trade in simulated and actual work situations. The student is expected to:

(A) accurately measure resistance, voltage, and power in series and parallel circuits;

(B) perform installation and repair procedures on major appliances;

(C) demonstrate troubleshooting techniques in testing, servicing, and repairing major appliances; and

(D) apply the essential knowledge and skills in major appliance repair services to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.44. Instrumentation.

(a) General requirements. Instrumentation includes the knowledge and application of the basic theories and principles of measurement. The courses in this category may be offered

in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Electrical/Electronic Careers (one-half to one credit), Introduction to Instrumentation (one-half to one credit), Instrumentation (one-half to one credit), Physics of Instrumentation (one-half to one credit), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in electrical-electronics systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for instrumentation;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of instrumentation. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete repair and installation work orders and related paperwork;

(C) estimate supplies, materials, and labor costs on installation, maintenance, and repair work orders;

(D) demonstrate knowledge of the units of measurement of length, area, volume, weight, and mass; and

(E) read and interpret appropriate schematics, drawings, charts, diagrams, and service manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of instrumentation. The student is expected to:

(A) demonstrate knowledge of the mechanical and electrical measurements of length, volume, pH factor, weight, mass, pressure, temperature, humidity, viscosity, and windspeed systems;

(B) demonstrate knowledge of data transmission, computation, and reduction;

(C) demonstrate knowledge of basic electric and electronic theories and principles;

(D) demonstrate knowledge of binary digital devices, including number systems, gates, combination logic, and counters and resistors;

(E) demonstrate knowledge of programmable logic controllers;

(F) demonstrate knowledge of the transfer of heat through convection, conduction, and radiation; and

(G) demonstrate knowledge of rectification, amplification, and oscillation of electrical systems.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in instrumentation. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in instrumentation;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in instrumentation;

(C) demonstrate knowledge of manometers, pressure elements, and differential pressure measurement; and

(D) demonstrate knowledge of new and emerging technologies that may affect instrumentation.

(5) The student applies the concepts and skills of the trade in simulated and actual work situations. The student is expected to:

(A) accurately use measuring devices, gauges, test equipment, and specific hand tools;

(B) demonstrate knowledge of the static and dynamic characteristics of instruments;

(C) use floats, displacers, the contact method, and electric probes for direct level measurement;

(D) demonstrate knowledge of basic digital electronics; and

(E) apply the essential knowledge and skills in instrumentation to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.45. Industrial Electronics.

(a) General requirements. Industrial electronics includes the knowledge and application of basic electrical/electronic theories and principles as they relate to modern electronic components and systems. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Electrical/Electronic Careers (one-half to one credit), Electronics (two to three credits), Semiconductor Electronics (two to three credits), Direct Current Electronics (one to two credits), Computer Cabling and Design (two

to three credits), Alternating Current Electronics (one to two credits), Digital Logic Circuits (one to two credits), Solid State Devices (one-half credit), Solid State and Analog Circuits (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in industrial electronics systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in industrial electronics;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of industrial electronics. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete repair and installation work orders and related paperwork;

(C) estimate supplies, materials, and labor costs on installation, maintenance, and repair work orders; and

(D) read and interpret appropriate schematics, drawings, charts, diagrams, and technical manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of industrial electronics. The student is expected to:

(A) demonstrate an understanding of magnetism as it relates to electronic circuits;

(B) demonstrate knowledge of the fundamentals of analog and digital electronics theory;

(C) demonstrate knowledge of the design and use of diodes, transistors, and analog integrated circuits;

(D) demonstrate knowledge of the structure, theory, and application of solid-state components and devices;

(E) demonstrate knowledge of the similarities and differences in fluorescent, lasers, and light-emitting diodes; and

(F) demonstrate knowledge of microprocessor applications.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in industrial electronics. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in industrial electronics;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in industrial electronics;

(C) demonstrate knowledge of voltage regulation devices; and

(D) demonstrate knowledge of new and emerging technologies that may affect industrial electronics.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) apply Ohm's law and power theory to industrial electronics;

(B) calculate and measure resistance, current, voltage, and power in series and parallel circuits;

(C) apply electronic theory to generators, electric motors, power supplies, electronic amplifiers, electronic oscillators, communication circuits, and communication systems;

(D) perform electrical-electronic troubleshooting assignments;

(E) describe measurement techniques with analog, digital, and storage oscilloscopes; and

(F) apply the essential knowledge and skills in industrial electronics to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.46. Computer Technologies.

(a) General requirements. Computer technologies include knowledge of electrical/electronic theory, principles, and components related to the installation, diagnosis, service, and repair of computer-based technology systems. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Electrical/Electronic Careers (one-half to one credit), Introduction to Computers (one-half to one credit), Introduction to Computer Maintenance (one-half to one credit), Computer Maintenance Technician (two to three credits), Computer Cabling and Design (two to three credits), AC/DC Electronics/Digital Logic Functions (two credits), AC/DC Electronic/Computer Systems (two credits), Digital Logic Circuits (two credits), Digital Logic and Microprocessors (two credits), Digital Logic Electronic Circuit Technology (two credits), Semiconductor Electronic Technology (two to three credits), cooperative education

(two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in electrical-electronics systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in the field of computer technologies;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of computer technologies. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete repair and installation work orders and related paperwork;

(C) estimate supplies, materials, and labor costs for installation, maintenance, and repair work orders; and

(D) read and interpret appropriate schematics, drawings, charts, diagrams, and technical manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of computer technologies. The student is expected to:

(A) demonstrate knowledge of the fundamentals of microcomputers, microprocessor theory, and logic;

(B) demonstrate knowledge of the theories of magnetism, electricity, electronics, and proper troubleshooting techniques;

(C) demonstrate knowledge of digital and analog electronics theory;

(D) demonstrate knowledge of the relationships of data-communications theory;

(E) demonstrate knowledge of the architecture of a computer system;

(F) demonstrate knowledge of central processing units (CPU), storage devices, and peripheral devices; and

(G) demonstrate knowledge of computer system environmental and control devices.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in computer technologies. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in computer technologies;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in computer technologies; and

(C) demonstrate knowledge of new and emerging technologies that may affect the field of computer technology.

(5) The student applies the concepts and skills of the trade in simulated and actual work situations. The student is expected to:

(A) use electrical and electronic test equipment to measure current, voltage, power, and resistance;

(B) design circuits using both transistor-transistor logic (TTL) and complementary metal oxide semiconductor (CMOS) integrated circuits (ICs);

(C) identify the basic operational features and proper terminology related to computer systems;

(D) identify and test the central processor, basic input/output system (BIOS), read-only memory (ROM), and random access memory (RAM);

(E) troubleshoot computer peripheral and communication devices; and

(F) apply the essential knowledge and skills in computer technologies to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.47. Telecommunication Services.

(a) General requirements. Telecommunication services include knowledge of the installation, diagnosis, service, and repair of electronic data transmission and reception systems. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Electrical/Electronic Careers (one-half to one credit), Fundamentals of Telecommunications (one-half to one credit), Telecommunication Technologies (one credit), Computer Cabling and Design (two to three credits), AC/DC Electronics/Computer Systems (two to three credits), Digital Logic Circuits (two credits), Solid State Devices and Analog Circuits (one-half to one credit), Semiconductor Electronics (two to three credits), cooperative educa-

tion (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in electrical-electronics systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in the field of telecommunications;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of telecommunication services. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete repair and installation work orders and related paperwork;

(C) estimate supplies, materials, and labor costs on installation, maintenance, and repair work orders; and

(D) read and interpret appropriate schematics, drawings, charts, diagrams, and technical manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of telecommunication services. The student is expected to:

(A) demonstrate knowledge of the theories of magnetism, electricity, electronics, and proper troubleshooting techniques;

(B) demonstrate knowledge of digital and analog electronics theory;

(C) demonstrate knowledge of the national standards for data communication; and

(D) demonstrate knowledge of the different types of computer network topologies.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in telecommunication services. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in telecommunication services;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in telecommunications services; and

(C) demonstrate knowledge of new and emerging technologies that may affect the field of telecommunication services.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) design circuits using both transistor-transistor logic (TTL) and complementary metal oxide semiconductor (CMOS) integrated circuits (ICs);

(B) distinguish between data packet and voice communications;

(C) connect various types of data connectors utilized in computer networking and data communications;

(D) solder terminals, lead components, integrated circuits, and type package and multi-lead devices; and

(E) apply the essential knowledge and skills in telecommunications to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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For further information, please call: (512) 463-9701



Subchapter D. Metal Technology Systems, High School

19 TAC §§125.61–125.65

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§125.61. Implementation of Texas Essential Knowledge and Skills for Trade and Industrial Education, Metal Technology Systems, High School.

The provisions of Chapter 125 shall supersede §75.88 of this title (relating to Trade and Industrial Education) beginning September 1, 1998.

§125.62. Machine Shop.

(a) General requirements. Machine shop includes knowledge and application of precision machining manufacturing operations. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Precision Metal Manufacturing Careers (one-half to one credit), Machine Shop (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in metal technology systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for machine shop;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of machine shop. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate supplies, materials, and labor costs;

(D) read and interpret appropriate schematics, blueprints, drawings, charts, and diagrams; and

(E) utilize mathematics as it applies to precision measuring operations and machining operations.

(3) The student knows the concepts and skills that form the core knowledge of machine shop. The student is expected to:

(A) identify the resources found in "The Machinery's Handbook;" and

(B) demonstrate knowledge of the uses of abrasives.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in the machine shop. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in machine shops;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in machine shops;

(C) demonstrate knowledge of numerically-controlled and computerized operations; and

(D) demonstrate knowledge of new and emerging technologies that may affect the machine shop.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) demonstrate proficiency in basic cutting processes, including drilling, turning, boring, milling, and broaching;

(B) utilize various work mounting procedures and devices on all machines;

(C) properly cut threads, turn tapers, polishes, knurls, and bores on the lathe;

(D) mill flat surfaces, bevels, chamfers, grooves, and keyseats utilizing proper milling procedures;

(E) utilize proper machines and procedures for surface grinding operations;

(F) machine and fit precision pieces;

(G) demonstrate knowledge of hardening, tempering, annealing, normalizing, and case hardening steel; and

(H) apply the knowledge and skills in machine shop to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.63. *Metal Trades.*

(a) General requirements. Metal trades includes the knowledge and application of precision machining and welding technologies. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Precision Metal Manufacturing Careers (one-half to one credit), Metal Trades (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in metal technology systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in metal trades;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of metal trades. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate supplies, materials, and labor costs;

(D) read and interpret appropriate blueprints, drawings, charts, diagrams, and welding symbols; and

(E) utilize mathematics in precision measuring operations.

(3) The student knows the concepts and skills that form the core knowledge of metal trades. The student is expected to:

(A) identify the resources found in "The Machinery's Handbook;"

(B) demonstrate knowledge of the basic theory of shielded metal arc-welding, metal inert gas-welding, and tungsten inert gas-welding; and

(C) demonstrate knowledge of the use of abrasives.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in metal trades. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in metal trades;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in metal trades;

(C) demonstrate knowledge of basic numerically-controlled machining operations;

(D) demonstrate knowledge of the concepts of numerically-controlled, computer-numerically-controlled, and robotics-controlled welding machines; and

(E) demonstrate knowledge of new and emerging technologies that may affect metal trades.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) utilize various work mounting procedures and devices on the lathe, drill press, and milling machine;

(B) demonstrate the basic cutting operations of the drill press, lathe, and milling machines;

(C) properly turn, cut threads, turn tapers, drills, reams, polishes, knurls, and bores on the engine lathe;

(D) mill flat surfaces, bevels, chamfers, grooves, and keyseats;

(E) machine and fit precision pieces;

(F) utilize the oxyfuel cutting process to produce freehand, straight line, and beveled cuts;

(G) identify the use of the common types of electrodes;

(H) utilize gas tungsten arc and gas metal arc processes to weld various points on metal plate and pipe joints in all appropriate positions;

(I) inspect and test welds; and

(J) apply the essential knowledge and skills in metal trades to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training programs.

§125.64. Sheetmetal.

(a) General requirements. Sheetmetal includes the knowledge and application of the principles of design and fabrication of sheetmetal products. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Precision Metal Manufacturing Careers (one-half to one credit), Sheetmetal (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in metal technology systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration

of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in sheetmetal;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of sheetmetal. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate supplies, materials, and labor costs;

(D) utilize mathematics in precision measuring operations; and

(E) read and interpret appropriate blueprints, drawings, charts, and diagrams.

(3) The student knows the concepts and skills that form the core knowledge of sheetmetal. The student is expected to:

(A) demonstrate knowledge of the types, sizes, and properties of sheetmetal materials and fasteners;

(B) demonstrate knowledge of the basic fundamentals of oxyfuel welding, brazing, soldering, and cutting; and

(C) demonstrate knowledge of the basic fundamentals of shielded arc-welding.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in sheetmetal. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in sheetmetal;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in sheetmetal; and

(C) demonstrate knowledge of new and emerging technologies that may affect sheetmetal.

(5) The student applies the concepts and skills of the trade in simulated and actual work situations. The student is expected to:

(A) draw sheetmetal layouts and patterns utilizing accepted methods;

(B) identify and construct common sheetmetal seams;

(C) properly construct transitions and offsets;

(D) properly utilize the tungsten arc-welding process in sheetmetal construction;

(E) apply the principles of sheetmetal construction to the fabrication and installation of ventilation and air-conditioning ducts; and

(F) apply the essential knowledge and skills in sheetmetal to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.65. Welding.

(a) General requirements. Welding includes the knowledge and application of the principles of design and fabrication utilizing welding technologies. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Precision Metal Manufacturing Careers (one-half to one credit), Welding (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in metal technology systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in welding;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulation.

(2) The student relates core academic skills to the requirements of welding. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate supplies, materials, and labor costs; and

(D) read and interpret appropriate blueprints, drawings, charts, diagrams, and welding symbols.

(3) The student knows the concepts and skills that form the core knowledge of welding. The student is expected to:

(A) demonstrate knowledge of the basic theory of oxyfuel cutting, including types and uses of flames and types of fuels; and

(B) demonstrate knowledge of the basic theories of shielded arc-welding, metal inert gas- welding, and tungsten inert gas-welding.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in welding. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in welding;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in welding;

(C) demonstrate knowledge of the concepts and use of numerically-controlled, computer- numerically-controlled, and robotics-controlled welding machines; and

(D) demonstrate knowledge of new and emerging technologies that may affect welding.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) utilize the oxyfuel cutting process to produce freehand, straight line, pierce, and beveled cuts;

(B) apply specialized cutting processes;

(C) inspect and test cuts made with the oxyfuel cutting process;

(D) identify the use of the common types of electrodes;

(E) apply the brazing process on various metals;

(F) utilize the shielded metal arc process to weld edge, lap, tee, outside corner, and grooved butt joints on metal plate in all appropriate positions;

(G) utilize the shielded metal arc process to weld various pipe joints in vertical and horizontal positions;

(H) utilize gas tungsten arc and gas metal arc-welding processes for basic plate welding procedures;

(I) inspect and test welds; and

(J) apply the knowledge and skills in welding to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training programs.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

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Subchapter E. Industrial and Manufacturing Systems, High School

19 TAC §§125.71-125.80

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§125.71. Implementation of Texas Essential Knowledge and Skills for Trade and Industrial Education, Industrial and Manufacturing Systems, High School.

The provisions of Chapter 125 shall supersede §75.88 of this title (relating to Trade and Industrial Education) beginning September 1, 1998.

§125.72. Hydraulics and Pneumatics.

(a) General requirements. Hydraulics and pneumatics include knowledge and application of the laws and principles of fluid power, control systems, and components. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Hydraulics and Pneumatics (one to two credits), Introduction to Engineering Systems (one-half to one credit), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in industrial and manufacturing systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and

skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for hydraulics and pneumatics;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of hydraulics and pneumatics. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate supplies, materials, and labor costs; and

(D) read and interpret appropriate blueprints, work drawings, charts, diagrams, manuals, and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of hydraulics and pneumatics. The student is expected to:

(A) demonstrate knowledge of the theory of hydraulics;

(B) demonstrate knowledge of electrical-electronic theory and applications;

(C) demonstrate knowledge of AC and DC motors and devices; and

(D) demonstrate knowledge of the theory of pneumatics.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in hydraulics and pneumatics. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in hydraulics and pneumatics;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in hydraulics and pneumatics; and

(C) demonstrate knowledge of new and emerging technologies that may affect hydraulics and pneumatics.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) clean, flush, service, inspect, install, remove, repair, and replace hydraulic systems and components;

(B) demonstrate knowledge of the fundamentals of pressure and force in containers;

(C) demonstrate knowledge of the function of pneumatic machinery, systems, and components; and

(D) apply the essential knowledge and skills in hydraulics and pneumatics to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.73. Petro-Chemical Processing.

(a) General requirements. Petro-chemical processing includes the knowledge and application of the principles of control and distribution related to petro-chemical processes. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Petro-Chemical Laboratory Technician (one-half to one credit), Petro-Chemical Process Technology (one-half to one credit), Plant Processing (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in industrial and manufacturing systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for a petro-chemical laboratory technician;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of petro-chemical processing. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully log test results and prepare reports of findings;

(C) estimate supplies, materials, and labor costs; and

(D) read and interpret appropriate schematics, blueprints, work drawings, charts, diagrams, and laboratory manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of petro-chemical processing. The student is expected to:

(A) demonstrate knowledge of the molecular structure and properties of solids, liquids, and gases;

(B) demonstrate knowledge of the laws of physics for gases;

(C) demonstrate knowledge of processes of chemistry;

(D) demonstrate knowledge of the principles of distillation; and

(E) demonstrate knowledge of the principles of operation of boilers, furnaces, and reactors.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in petro-chemical processing. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in the petro-chemical laboratory;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in the petro-chemical plant; and

(C) demonstrate knowledge of new and emerging technologies that may affect the petro-chemical industry.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) accurately measure volume, weight, mass, pressure, temperature, and viscosity;

(B) accurately utilize electrical, electronic, and mechanical measuring and testing equipment;

(C) set up laboratory equipment and instrumentation required for tests and experiments;

(D) follow standardized formulations and experimental procedures;

(E) conduct laboratory tests to determine chemical and physical properties;

(F) apply wet and instrumental methods to qualitative and quantitative analysis of elements, compounds, and mixtures;

(G) prepare solutions of a given volume and concentration;

(H) synthesize and characterize selected organic and inorganic compounds; and

(I) apply the essential knowledge and skills in petrochemical processing to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.74. *Quality Control.*

(a) General requirements. Quality control includes the knowledge and application of production processes as they relate to standards of quality control procedures, practices, and products. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Instrumentation (one-half to one credit), Quality Control (two to three credits), Instrumentation (one-half to one credit), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in industrial and manufacturing systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge, and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for quality control;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of quality control. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders, reports, and related paperwork;

(C) estimate supplies, materials, and labor costs; and

(D) read and interpret appropriate schematics, blueprints, work drawings, charts, diagrams, manuals, and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of quality control. The student is expected to:

(A) demonstrate knowledge of manufacturing processes;

(B) demonstrate knowledge of the characteristics of metals, plastics, and various other materials utilized in manufacturing; and

(C) demonstrate knowledge of the theory of tolerance and fits.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in quality control. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in quality control;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in quality control; and

(C) demonstrate knowledge of new and emerging technologies that may affect quality control.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) accurately use electrical, electronic, and mechanical measuring and testing equipment;

(B) properly use machining tools, the drill press, and the lathe;

(C) demonstrate techniques of brazing, welding, crimping, wiring, and wrapping;

(D) utilize mechanical drafting techniques;

(E) accurately test compression, hardness, tensile, and shear strength;

(F) perform inspections involving quality control procedures and products; and

(G) apply the essential knowledge and skills in quality control to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.75. *Power Technology.*

(a) General requirements. Power technology includes the knowledge of the operation, diagnosis, maintenance, and service of stationary power production systems. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Stationary Energy Sources (one to two credits), Introduction to Engineering Systems (one-half to one credit), Power Technology (one-half to one credit), cooperative education (two to three credits), job shadowing (one

credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in industrial and manufacturing systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge, and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for power technology;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of power technology. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate supplies, materials, and labor costs; and

(D) read and interpret appropriate schematics, blueprints, work drawings, and service and repair manuals and bulletins.

(3) The student knows the concepts and skill that form the core knowledge of power technology. The student is expected to:

(A) demonstrate knowledge of electrical and electronic theories and applications;

(B) demonstrate knowledge of the function of stationary energy source equipment, systems, and components; and

(C) demonstrate knowledge of the function of power generating equipment, systems, and components.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in power technology. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in power technology;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in power technology; and

(C) demonstrate knowledge of new and emerging technologies that may affect power technology.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) accurately utilize electrical, electronic, and mechanical measuring and testing equipment;

(B) analyze malfunctions in stationary energy source equipment, systems, and components;

(C) inspect, clean, lubricate, service, remove, repair, and replace stationary energy source equipment and system components;

(D) dismantle and overhaul motors, pumps, compressors, hydroelectrical, and electrical generators;

(E) install and service wiring, switchboards, control panels, automatic recorders, and graphs; and

(F) apply the essential knowledge and skills in power technology to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.76. Plastics Technology.

(a) General requirements. Plastics technology includes the design and fabrication of plastic products. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Vocational Plastics (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in industrial and manufacturing systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge, and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for plastics technology;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of plastics technology. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) create a simple plan, sketch, and calculate the cost and a bill of materials involving various types of plastics work assignments; and

(D) read and interpret appropriate blueprints, work drawings, and service and repair manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of plastics technology. The student is expected to:

(A) demonstrate knowledge of electrical, electronic, and mechanical measuring and testing equipment; and

(B) demonstrate knowledge of the chemistry of plastics, reinforced molding, and methods of fabrication techniques.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in plastics technology. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in plastics technology;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in plastics technology;

(C) demonstrate knowledge of the use of computers and robots in the plastic manufacturing processes; and

(D) demonstrate knowledge of new and emerging technologies that may affect plastics technology.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) properly use molding thermoforming, extrusion, reinforced molding, and methods of fabrication techniques;

(B) produce tools and dies for plastics processing methods;

(C) properly use casting and coating processes;

(D) properly use the accepted processes of the joining and fastening of plastics;

(E) use decorating processes employing hot stamping, silk screening, engraving, and other techniques; and

(F) apply the essential knowledge and skills in plastics technology to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.77. Plant Processes.

(a) General requirements. Plant processes include the knowledge and application of the principles of the control and operation of plant manufacturing processes. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Plant Processes (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in industrial and manufacturing systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for plant processing;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of plant processes. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate supplies, materials, and labor costs; and

(D) read and interpret appropriate schematics, blueprints, work drawings, and service and repair manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of plant processes. The student is expected to:

(A) demonstrate knowledge of electrical and electronic theories and applications;

(B) demonstrate knowledge of the relationship of pressure, temperature, levels, and flow;

(C) demonstrate knowledge of the function, adjustment, and monitoring of warning indicators and alarms; and

(D) demonstrate knowledge of the nature and operation of separation, conversion, and polymerization units in refinery and chemical plants.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in plant processes. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in plant processing;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in plant processing;

(C) demonstrate knowledge of electrical, electronic, and mechanical measuring and testing equipment; and

(D) demonstrate knowledge of new and emerging technologies that may affect plant processing.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) draw flow plan sketches of refinery and chemical plant units;

(B) lubricate, adjust, and make minor repairs to operating equipment;

(C) determine the operation and control required to produce a specified quantity and quality of product;

(D) properly operate controllers in manual, automatic, and computer modes; and

(E) apply the essential knowledge and skills in plant processes to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.78. Plant Maintenance.

(a) General requirements. Plant maintenance includes the knowledge of the technologies and materials required to diagnose, service, and repair industrial facilities. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Plant Maintenance (two to three credits), Introduction to Engineering Systems (one-half to one credit), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in industrial and manufacturing systems. Students need to develop knowledge of the concepts and

skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements for plant maintenance;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of plant maintenance. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate equipment, materials, and labor costs required to complete a work assignment; and

(D) read and interpret appropriate schematics, blueprints, work drawings, and service and repair manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of plant maintenance. The student is expected to:

(A) demonstrate knowledge of electrical and electronic theories and applications; and

(B) demonstrate knowledge of the function of plant equipment, services, and plant construction.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in plant maintenance. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in plant maintenance;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in plant maintenance;

(C) demonstrate knowledge of electrical, electronic, and mechanical measuring and testing equipment; and

(D) demonstrate knowledge of new and emerging technologies that may affect plant maintenance.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) perform basic carpentry, electrical, concrete laying and finishing, and air-conditioning and heating repairs;

(B) inspect, repair, replace, and paint counters, benches, partitions, walls, sidewalks, drives, and woodwork;

(C) dismantle, repair, maintain, paint, lubricate, remove, and replace machinery, shafts, equipment, and fixtures; and

(D) apply the essential knowledge and skills in plant maintenance to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.79. Foundry Operations.

(a) General requirements. Foundry operations include the knowledge of the principles and operation of forming, casting, and finishing molten metals. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Foundry Operations (one to two credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in industrial and manufacturing systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in foundry operations;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of foundry operations. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate supplies, materials, and labor costs; and

(D) read and interpret appropriate blueprints, work drawings, manuals, and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of foundry operations. The student is expected to:

(A) demonstrate knowledge of alloys, metal alloy compositions, heat treatment of metals, contaminants, velocity control, and metal contraction rates;

(B) demonstrate the proper process of soldering;

(C) demonstrate knowledge of the basic theories of shielded arc-welding, metal inert gas-welding, and tungsten inert gas-welding; and

(D) demonstrate knowledge of the chemical oxidizing of metal.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in foundry operations. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in foundry operations;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in foundry operations;

(C) properly utilize a plasma cutting machine; and

(D) demonstrate knowledge of new and emerging technologies that may affect foundry operations.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) properly use the common types of electrodes;

(B) demonstrate proficiency in sand casting;

(C) demonstrate proficiency in lost wax casting;

(D) utilize vacuum chambers operation in de-airing rubber and epoxy molding compounds;

(E) monitor slurry systems for correct viscosity and pH;

(F) adjust and monitor metal melting furnaces to avoid oxidizing or reducing atmosphere and maintain a neutral flame to produce gas free metal;

(G) demonstrate knowledge of the types of industrial abrasives used in the foundry industry and their relationships to different metal alloys;

(H) demonstrate proper metal pouring techniques;

(I) control hydrostatic pressures created in the pouring of molten metals; and

(J) apply the essential knowledge and skills in foundry operations to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.80. Ceramics Manufacturing.

(a) General requirements. Ceramics manufacturing includes the knowledge of the principles and operation of forming, casting, and finishing ceramic products. The courses in this category may be offered in Grades 9- 12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Industrial Ceramics (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in industrial and manufacturing systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in ceramics manufacturing;

(B) demonstrate knowledge of the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of ceramics manufacturing. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate supplies, materials, and labor costs;

(D) read and interpret appropriate blueprints, plans, work drawings, service manuals, and bulletins; and

(E) calculate the production costs of ceramic pieces produced.

(3) The student knows the concepts and skills that form the core knowledge of ceramics manufacturing. The student is expected to:

(A) demonstrate knowledge of ceramics as an art form;

(B) demonstrate knowledge of the utilization of ceramics in the industrial world; and

(C) demonstrate knowledge of the marketing, labeling, pricing, displaying, and advertising of ceramic products.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in ceramics manufacturing. The student is expected to:

(A) safely use hand and power tools and equipment commonly employed in ceramics manufacturing;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in ceramics manufacturing;

(C) identify ceramic tools, supplies, and equipment; and

(D) demonstrate knowledge of new and emerging technologies that may affect ceramics manufacturing.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) maintain, handle, and utilize ceramic molds properly;

(B) properly pour and produce greenware;

(C) operate, maintain, load, and use the firing procedures of a ceramic kiln;

(D) apply ceramic color underglaze, glaze, and stain to greenware and bisque ceramic pieces; and

(E) apply the essential knowledge and skills in ceramics manufacturing to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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For further information, please call: (512) 463-9701

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Subchapter F. Communication and Media Systems, High School

19 TAC §§125.91–125.99

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§125.91. Implementation of Texas Essential Knowledge and Skills for Trade and Industrial Education, Communication and Media Systems, High School.

The provisions of Chapter 125 shall supersede §75.88 of this title (relating to Trade and Industrial Education) beginning September 1, 1998.

§125.92. Commercial Photography.

(a) General requirements. Commercial photography includes the knowledge of the principles, processes, equipment, and materials related to the production of a marketable photographic image. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Graphic Communication Careers (one-half to one credit), Introduction to Visual Communication Processes (one-half to one credit), Commercial Photography (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in communication and media systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in the field of commercial photography;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation; (C) identify employers' expectations;

paperwork; (C) estimate supplies, materials, and labor costs; read and interpret technical drawings; and use environmentally hazardous materials used in the field of commercial photography;

(5) The student applies concepts and skills of trade

(a) General requirements. Graphic communication technologies include the knowledge of the principles, procedures, and technologies related to graphic imaging generation and reproduction. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Graphic Communication Careers (one-half to one credit); Introduction to Visual Communication Processes (one-half to one credit); Graphic Arts (two to three credits); Computerized Typesetting (two credits); Introduction to Desktop Publishing (one-half to one credit); Technology Communications, Art, and Design (one-half to one credit); Desktop Design (one-half to one credit); cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in communication and media systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workforce. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in the field of graphic communication technologies;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of graphic communication technologies. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate jobs, production, and schedules as governed by commonly accepted practices; and

(D) read and interpret appropriate schematics, work drawings, proofreaders' marks, and service and repair manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of graphic communication technologies. The student is expected to:

(A) demonstrate knowledge of the basic principles of offset and other printing processes;

(B) demonstrate knowledge of electronic and other image generation devices for reproduction photography; and

(C) demonstrate proficiency in various tasks in bindery work, including, but not limited to, stitching, drilling, collating, jogging, padding, wrapping, cutting, and folding.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in graphic communication technologies. The student is expected to:

(A) safely use tools and equipment commonly employed in the field of graphic communication technologies;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in the field of graphic communication technologies; and

(C) demonstrate knowledge of new and emerging technologies that may affect the field of graphic communication technologies.

(5) The student applies the concepts and skills of the trade in simulated and actual work situations. The student is expected to:

(A) compose types and related images using computerized or other equipment and processes in art and copy preparation as directed;

(B) demonstrate knowledge of offset press operating procedures, including preventive maintenance and troubleshooting;

(C) create communication materials utilizing color, text, and graphics; and

(D) apply the essential knowledge and skills in graphic communication technologies to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.94. Advertising Design.

(a) General requirements. Advertising design includes the knowledge and application of creative design, theory, principles, and practices as related to communication media. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Graphic Communication Careers (one-half to one credit), Introduction to Advertising (one-half to one credit), Advertising Design (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in communication and media

systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in the field of advertising design;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace.

(2) The student relates core academic skills to the requirements of advertising design. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate supplies, materials, and labor costs; and

(D) read and interpret floor plans, work drawings, proofreaders' marks, manuals, and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of advertising design. The student is expected to:

(A) demonstrate knowledge that the sale of goods and services is the ultimate goal of advertising;

(B) utilize advertising theory, layout, and preparation in advertising design;

(C) demonstrate knowledge of production techniques utilized in advertising design; and

(D) demonstrate knowledge of the techniques and procedures used in computer graphics design.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in advertising design. The student is expected to:

(A) safely use tools, materials, and equipment commonly employed in the field of advertising design;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in the field of advertising design; and

(C) demonstrate knowledge of new and emerging technologies that may affect the field of advertising design.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) compare and contrast the characteristics of advertising media that enhance or impede both services and/or the sale of goods;

(B) complete assignments from customer or supervisor to create, draw, or modify in order to achieve the desired effect;

(C) design and create graphic materials for use as ornamentation, illustration, and advertising on manufactured materials and packaging;

(D) review marketing trends and preferences of target and related markets;

(E) create designs for advertising, display, and instructional manuals;

(F) fabricate items such as signs, design emblems, and monogram designs;

(G) prepare professional portfolio pieces that are aimed at student's target job market; and

(H) apply the essential knowledge and skills in advertising design to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.95. *Architectural Interior Design.*

(a) General requirements. Architectural interior design includes the knowledge of the principles, processes, technologies, and materials related to interior spatial design. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Graphic Communication Careers (one-half to one credit); Introduction to Computer-Aided Drafting (one-half to one credit); Technology in Communications, Art, and Design one-half to one credit; Drafting (two to three credits); Introduction to Computer Aided Drafting (one-half to one credit); cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in communication and media systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in the field of architectural interior design;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of architectural interior design. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate supplies, materials, and labor costs; and

(D) read and interpret schematics, floor plans, work drawings, catalogs, manuals, and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of architectural interior design. The student is expected to:

(A) utilize interior design theory, layout, and design lines, symbols, and drawings;

(B) demonstrate knowledge of the theory and use of color in interior design; and

(C) demonstrate knowledge of the principles of computer-aided drafting.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in architectural interior design. The student is expected to:

(A) safely use tools, materials, and equipment commonly employed in the field of architectural interior design;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in the field of architectural interior design; and

(C) demonstrate knowledge of new and emerging technologies that may affect the field of architectural interior design.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) render freehand commercial and residential interior design working drawings;

(B) draw a single-line floor plan from a bubble diagram for a residence;

(C) choose interior furnishings and finish materials for a residence and a commercial office interior;

(D) prepare and draw dimension plans for construction documents;

(E) produce interior drawings using both one-point and two-point perspective;

(F) develop and complete schematic design drawings; and

(G) apply the essential knowledge and skills in architectural interior design to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training programs.

§125.96. Media Technology.

(a) General requirements. Media technology includes the knowledge and application of the principles of media and communication systems. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Graphic Communication Careers (one-half to one credit), Introduction to Media Technology (one-half to one credit), Introduction to Visual Communication Processes (one-half to one credit), Media Technology (two to three credits), Animation (one to two credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in communication and media systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in the field of media technology;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of media technology. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate jobs, schedules and trade practices related to legal restrictions; and

(D) read and interpret appropriate schematics, work drawings, manuals, and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of media technology. The student is expected to:

(A) demonstrate knowledge of the electrical, electronic, and communication theory, principles, and practices;

(B) utilize the principles of basic set design; and

(C) demonstrate knowledge of legal restrictions and copyright laws related to media technology.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in media technology. The student is expected to:

(A) safely use tools, materials, and equipment commonly employed in the field of media technology;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in the field of media technology;

(C) properly utilize audio recording, editing, and mixing systems;

(D) properly operate a videotape recorder; and

(E) demonstrate knowledge of new and emerging technologies that may affect the field of media technology.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) create media graphics and animation;

(B) operate different types of video cameras;

(C) identify and apply the basic principles of lighting;

(D) utilize the various capabilities of television switching and special effect systems;

(E) utilize various video signal control and monitoring equipment;

(F) script, direct, and produce media productions; and

(G) apply the essential knowledge and skills in media technology to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training programs.

§125.97. *Mechanical Drafting.*

(a) General requirements. Mechanical drafting includes the knowledge of the design, techniques, and tools related to the production of drawings for mechanical applications. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Graphic Communication Careers (one-half to one credit), Introduction to Drafting (one-half to one credit), Drafting (one-half to one credit), Introduction to Engineering Systems (one-half to one credit), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in communication and media systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in the field of mechanical drafting;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of mechanical drafting. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate jobs, schedules and trade practices related to legal restrictions;

(D) read and interpret appropriate drafting symbols, schematics, blueprints, work drawings, manuals, and bulletins; and

(E) utilize descriptive geometry related to auxiliary views, revolutions, intersections, and piping drawings.

(3) The student knows the concepts and skills that form the core knowledge of mechanical drafting. The student is expected to:

(A) apply appropriate industrial techniques to the development of multiview drawings, sectional views, and pictorial drawings;

(B) apply the various processes of drawing reproduction; and

(C) apply appropriate techniques to the development of technical illustrations.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in mechanical drafting. The student is expected to:

(A) safely use tools, materials, and equipment commonly employed in the field of mechanical drafting;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in the field of mechanical drafting; and

(C) demonstrate knowledge of new and emerging technologies that may affect the field of mechanical drafting.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) demonstrate skills in sketching, lettering, dimensioning, and line development;

(B) develop ink drawings as directed;

(C) draft detailed working drawings of machinery and mechanical devices;

(D) draft multiple-view assembly and sub-assembly drawings;

(E) draw topographical maps from appropriate source data; and

(F) apply the essential knowledge and skills in mechanical drafting to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.98. Architectural Drafting.

(a) General requirements. Architectural drafting includes the knowledge of the design, techniques, and tools related to the production of drawings for architectural purposes. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Graphic Communication Careers (one-half to one credit), Introduction to Computer-Aided Drafting (one-half to one credit), Architectural Drafting (two to three credits), Engineering and Architectural Drafting (two credits), Architectural Blueprints and Specifications (one-half to one credit), Architectural Materials (one-half to one credit), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in communication and media systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in the field of architectural drafting;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of architectural drafting. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate jobs, schedules and trade practices related to legal restrictions;

(D) read and interpret appropriate architectural symbols, schematics, blueprints, work drawings, manuals, and bulletins; and

(E) utilize descriptive geometry related to auxiliary views, revolutions, intersections, and piping drawings.

(3) The student knows the concepts and skills that form the core knowledge of architectural drafting. The student is expected to:

(A) demonstrate knowledge of architectural design principles;

(B) determine building code and zoning requirements for building types in a selected area; and

(C) demonstrate knowledge of the various Grades and types of construction materials.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in architectural drafting. The student is expected to:

(A) safely use the tools, materials, and equipment commonly employed in the field of architectural drafting;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in the field of architectural drafting; and

(C) demonstrate knowledge of new and emerging technologies that may affect the field of architectural drafting.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) utilize architectural lettering techniques;

(B) develop preliminary sketches of a house plan;

(C) demonstrate through drawings the development of maximum efficiency of circulation within areas or rooms;

(D) develop a site plan utilizing maximum orientation of the building relative to views, sun, and wind direction;

(E) draw building designs and styles to ensure compatibility between interior and exterior to enhance overall appearance;

(F) freehand draws schematic site plans, floor plans, building elevations, sections, perspectives, and character sketches from bubble diagrams;

(G) draw scaled wall thickness plans, elevations, and sections;

(H) develop details of footing and foundations sections, floor and wall sections, ceiling and roof sections, door and window sections, and other sections as required;

(I) assemble an architectural design in three dimensions; and

(J) apply the essential knowledge and skills in architectural drafting to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.99. *Computer-Aided Drafting.*

(a) General requirements. Computer aided drafting includes the knowledge of the design, techniques, tools, and technologies related to the production of technical drawings. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Graphic Communication Careers (one-half to one credit), Introduction to Drafting (one-half to one credit), Introduction to Engineering Systems (one-half to one credit), Introduction to Computer-Aided Drafting (one-half to one credit), Computer Graphics and Machine Drafting (two credits), Engineering Computer-Aided Drafting (two to three credits), Advanced Computer-Aided Drafting (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in communication and media systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in the field of computer-aided drafting;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of computer-aided drafting. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate jobs, schedules and trade practices related to legal restrictions; and

(D) read and interpret appropriate architectural symbols, schematics, blueprints, work drawings, manuals, and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of computer-aided drafting. The student is expected to demonstrate knowledge of the fundamentals of computer-aided drafting.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in computer-aided drafting. The student is expected to:

(A) safely use tools, materials, and equipment commonly employed in the field of computer-aided drafting;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in the field of computer-aided drafting; and

(C) demonstrate knowledge of new and emerging technologies that may affect the field of computer-aided drafting.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) customize screen menus to fit specific problems or needs;

(B) construct points, lines, and other geometric forms using accepted computer-aided design methods;

(C) create simple isometric drawings and groups them as an exploded isometric;

(D) create three-dimensional solid models or various machine parts;

(E) view three-dimensional objects in several different positions;

(F) use a computer system to create a bill of materials;

(G) use a computer system to create and modify engineering drawings; and

(H) apply the essential knowledge and skills in computer aided drafting to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 15, 1997.

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Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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For further information, please call: (512) 463-9701



Subchapter G. Personal and Protective Service Systems, High School

19 TAC §§125.111–125.115

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§125.111. Implementation of Texas Essential Knowledge and Skills for Trade and Industrial Education, Personal and Protective Services Systems, High School.

The provisions of Chapter 125 shall supersede §75.88 of this title (relating to Trade and Industrial Education) beginning September 1, 1998.

§125.112. Cosmetology Services.

(a) General requirements. Cosmetology services include the knowledge and application of the principles and practices of the treatment of hair, skin, and nails in accordance with licensing requirements. The courses in this category may be offered in

Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Cosmetology (one-half to one credit), Cosmetology (two to three credits), Salon Entrepreneurship (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in personal and protective services systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in the field of cosmetology services;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of cosmetology. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate supplies, materials, equipment, and labor requirements for a work assignment; and

(D) read and interpret appropriate directions, ingredients, graphs, charts, manuals, and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of cosmetology. The student demonstrates knowledge of the rules and regulations established by the Texas Cosmetology Commission.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in cosmetology. The student is expected to:

(A) safely use tools, materials, and equipment commonly employed in the field of cosmetology services;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in the field of cosmetology services; and

(C) demonstrate knowledge of new and emerging technologies that may affect the field of cosmetology services.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) perform the tasks specified in the "Public School Program" as determined by the rules and regulations of the Texas Cosmetology Commission; and

(B) apply the essential knowledge and skills in cosmetology services to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.113. Leather Trades Services.

(a) General requirements. Leather trades services include the knowledge of the principles, techniques, tools, and equipment related to the production of leather products. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Leather Trades (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in personal and protective services systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in the field of leather trades services;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of leather trades services. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate supplies, materials, equipment, and labor requirements for a work assignment;

(D) make accurate measurements; and

(E) read and interpret appropriate directions, charts, manuals, and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of leather trades services. The student is expected to:

(A) demonstrate knowledge of processing, grading, and sorting leather; and

(B) demonstrate knowledge of various leather and synthetics utilized in the manufacture of leather products.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in leather trades services. The student is expected to:

(A) safely use tools, materials, and equipment commonly employed in the field of leather trades services;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in the field of leather trades services; and

(C) demonstrate knowledge of new and emerging technologies that may affect the field of leather trades services.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) utilize industrial techniques in tooling leather;

(B) skillfully carve and stamp leather designs;

(C) assemble, lace, and attach metal hardware to leather products;

(D) properly use stitching and sewing machines;

(E) utilize appropriate procedures in cleaning and finishing leather; and

(F) apply the essential knowledge and skills in leather trades services to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.114. Furniture Repair and Upholstery Services.

(a) General requirements. Furniture repair and upholstery services include the knowledge of the methods, materials, tools, and equipment related to furniture finishing, repair, and upholstery. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Upholstery/Furniture Repair (one-half to one credit), Furniture Repair and Upholstery (two to three credits), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in personal and protective services systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in the field of furniture repair and upholstery services;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of furniture repair and upholstery. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers;

(B) successfully complete work orders and related paperwork;

(C) estimate materials, equipment, and labor requirements for a work assignment; and

(D) read and interpret appropriate charts, graphs, instructions, drawings, and service and repair manuals and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of furniture repair and upholstery. The student is expected to:

(A) identify styles and periods of furniture;

(B) identify the various types and properties of woods;

(C) recognize traditional, period, and design styles of upholstery; and

(D) identify different fabrics, materials, finishes, and their characteristics.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in furniture repair and upholstery. The student is expected to:

(A) safely use tools, materials, and equipment commonly employed in the field of furniture repair and upholstery services

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in the field of furniture repair and upholstery; and

(C) demonstrate knowledge of new and emerging technologies that may affect the field of furniture repair and upholstery services.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) use the woodworking skills required for furniture finishing/repair;

(B) demonstrate knowledge of the types, properties, and uses of paints, varnishes, polishes, and waxes;

(C) disassemble and reassemble furniture;

(D) repair dents, mars, and scratches by utilizing fillers and stains;

(E) perform the tasks of fabrication and/or repair of disassembly and reassembly, such as tacking, nailing, gluing, measuring, lay-out, cutting, sewing, and fitting materials;

(F) apply filling, padding, springs, and fabric; and

(G) apply the essential knowledge and skills in furniture repair and upholstery services to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

§125.115. Protective Services.

(a) General requirements. Protective services includes the knowledge and application of the laws, rules, regulations, and other influences that govern the operation of the components of our nation's criminal justice system and related citizen protective services. The courses in this category may be offered in Grades 9-12. Following are the courses that can be included in this category with the units of credit that students may be awarded for successful completion of each course: Introduction to Criminal Justice (one-half to one credit), Introduction to Security Services (one-half to one credit), Crime in America (one-half to one credit), Fundamentals of Criminal Law (one-half to one credit), Security Services (one-half to one credit), Emergency Telecommunications (one-half to one credit), Basic County Corrections Officer (one-half to one credit),

Correctional Systems and Practices (one-half to one credit), Criminal Investigation (one-half to one credit), The Courts and Criminal Procedure (one-half to one credit), Criminal Justice Preceptorship (one-half to one credit), cooperative education (two to three credits), job shadowing (one credit), mentoring (one to three credits) and apprenticeship training (two to three credits).

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in personal and protective services systems. Students need to develop knowledge of the concepts and skills related to this system in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success.

(c) Knowledge and skills.

(1) The student knows the employability characteristics of a successful worker in the modern workplace. The student is expected to:

(A) identify employment opportunities, including entrepreneurship, and preparation requirements in the field of protective services;

(B) demonstrate the principles of group participation and leadership related to citizenship and career preparation;

(C) identify employers' expectations and appropriate work habits;

(D) apply the competencies related to resources, information, systems, and technology in appropriate settings and situations; and

(E) demonstrate knowledge of the concepts and skills related to health and safety in the workplace, as specified by appropriate government regulations.

(2) The student relates core academic skills to the requirements of protective services. The student is expected to:

(A) demonstrate effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and citizens;

(B) respond to inquiries, complaints, crisis situations, and make appropriate referrals;

(C) write grammatically correct, accurate, and concise reports, communications, and related documents and paperwork;

(D) utilize typewriters, computers, and related technologies as written communication tools; and

(E) read and interpret appropriate laws, legal documents, rules, regulations, directives, manuals, and bulletins.

(3) The student knows the concepts and skills that form the core knowledge of protective services. The student is expected to:

(A) demonstrate knowledge of purpose and need for laws, including statutory and procedural criminal law;

(B) demonstrate knowledge of the functional workings and interrelationship of the major components and sub-components of the criminal justice system;

(C) demonstrate knowledge of the types, elements, and sources of the laws that define certain acts as crimes in the United States;

(D) demonstrate knowledge of the structure of the American court system;

(E) demonstrate knowledge of the rules of evidence;

(F) demonstrate knowledge of the effect of constitutional law on the operation of the components of the criminal justice system;

(G) demonstrate knowledge of the federal, state, and local communications rules and regulations that govern the operation of emergency communications systems;

(H) demonstrate knowledge of the various explanations of criminal behavior;

(I) demonstrate knowledge of the basic legal terminology and concepts used in criminal justice;

(J) demonstrate knowledge of the criminal justice process from the time of arrest through release from custody;

(K) demonstrate knowledge of fire safety and rescue procedures; and

(L) demonstrate knowledge of the procedures for fighting fires of various origins.

(4) The student knows the function and application of the tools, equipment, technologies, and materials used in protective services. The student is expected to:

(A) safely use tools, materials, and equipment commonly employed in the field of protective services;

(B) properly handle and dispose of humanly and/or environmentally hazardous materials used in the field of protective services; and

(C) demonstrate knowledge of new and emerging technologies that may affect the field of protective services.

(5) The student applies the concepts and skills of the trade to simulated and actual work situations. The student is expected to:

(A) distinguish among federal, state, and local criminal justice agencies in terms of their jurisdiction, authority, and function;

(B) demonstrate knowledge of criminal investigation procedures;

(C) demonstrate knowledge of the practices and procedures utilized in law enforcement and private security;

(D) demonstrate knowledge of the operation of 911 and computer-aided dispatch systems;

(E) demonstrate proper fire search and rescue and fire fighting procedures;

(F) demonstrate the proper techniques for searching detainees/prisoners;

(G) demonstrate the security policies and procedures utilized in jails and prisons;

(H) demonstrate knowledge of emergency first aid practices; and

(I) apply the essential knowledge and skills in criminal justice to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 15, 1997.

TRD-9706474

Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

Effective date: September 1, 1998

Proposal publication date: February 28, 1997

For further information, please call: (512) 463-9701



Subchapter H. Research, High School

19 TAC §125.121, §125.122

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§125.121. Implementation of Texas Essential Knowledge and Skills for Trade and Industrial Education, Research, High School.

The provisions of Chapter 125 shall supersede §75.88 of this title (relating to Trade and Industrial Education) beginning September 1, 1998.

§125.122. Trade and Industrial Education Independent Study.

(a) General requirements. Students may be awarded one-half to one credit for successful completion of this course. The prerequisites are two trade and industrial courses in the coherent sequence. This course is recommended for Grade 12.

(b) Introduction. Rapid advances in technology have created new career opportunities and demands in trades and industries. Trade and industrial education provides the knowledge, skills, and technologies required for employment in seven broad systems. Students need to develop knowledge of the concepts and skills related to individual career concentrations in order to apply them to personal/career development. Trade and industrial education depends on and supports integration of academic and career and technology knowledge and skills. To prepare for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepares students for success.

(c) Knowledge and skills. The student utilizes knowledge and skills in trade and industrial education, math, science, English

language arts and social studies for the independent study as it relates to individual career concentrations. The student is expected to:

(1) develop a school-based learning activity in collaboration with the teacher and a related industrial mentor(s) that provides an in-depth study of at least one aspect of a selected business/industry/labor independent study;

(2) present the project in at least two formats (model, graphic, verbal, written, or other) to a panel of students, teachers and practitioners in the career concentration; and

(3) deliver the project's final product(s) that demonstrates the use of a variety of resources, technologies, and communications skills.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 15, 1997.

TRD-9706475

Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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For further information, please call: (512) 463-9701



Chapter 126. Texas Essential Knowledge and Skills for Technology Applications

The Texas Education Agency (TEA) adopts new §§126.1-126.3, 126.11, 126.12, and 126.21-126.29, concerning technology applications, with changes to the proposed text as published in the February 28, 1997, issue of the *Texas Register* (22 TexReg 2302). The new sections establish the essential knowledge and skills for technology applications, including the teaching and learning of technology skills and the use of computers and other related electronic tools. The essential knowledge and skills focus on creating, accessing, manipulating, utilizing, communicating, and publishing information during the learning process. The new sections are necessary to ensure that students throughout the state have access to the enrichment curricula. The provisions of these sections shall supersede §75.51 of this title (relating to Computer Literacy) and §75.123 of this title (relating to Computer Science) beginning September 1, 1998.

The Texas Education Code organizes the required curriculum into two types: the foundation curriculum and the enrichment curriculum. As specified in legislation, the essential knowledge and skills of the enrichment curriculum serve as guidelines to school districts in providing instruction. In doing so, some districts may incur costs for professional development and equipment. These potential costs cannot be estimated.

The following changes have been made since the sections were proposed.

Numerous editorial changes were made throughout the sections for clarification and simplification. Changes were also made

to strengthen verbs and to eliminate references to particular instructional approaches.

Since filing of the proposed sections, legal counsel has advised that since the sections serve as guidelines for instruction, language containing or implying mandates on school districts should be stricken or replaced with more permissive language where necessary. The term "shall" that appeared in prerequisites for enrollment in particular courses and in statements regarding the date of implementation of the provisions for each subchapter was replaced with more permissive language.

In subsection (a)(2) of §126.2 and §126.3 and subsection (b)(2) of §§126.12 and 126.22-126.29, language has been changed to reflect more appropriate wording.

To be consistent with other Texas essential knowledge and skills (TEKS) enrichment and foundation areas, language has been added to subsection (a) of §126.22 (relating to Computer Science I (One Credit)) and §126.23 (relating to Computer Science II (One Credit)) to include the College Board Advanced Placement Program and the International Baccalaureate Program.

In §126.22(c)(7)(C), the term "real life" has been replaced with "practical." In §126.24(c)(8)(B) and §126.26(c)(8)(A), the phrase "real world, meaningful" has been replaced with "and practical." These changes have been made to clarify the language.

In §126.22, language has been deleted in subsection (c)(7)(D) and (G) to provide flexibility in the programming language used.

The following comments have been received regarding adoption of the new sections. The comments are organized by subchapter and section.

Subchapter A. Elementary.

§126.2. Kindergarten-Grade 2.

Issue: language was unclear and age inappropriate in introduction.

Comment. An individual commented that the last sentence in §126.2(a)(2) is unclear and inappropriate for Kindergarten students. The statement in question is "Students will analyze audience requirements and available delivery mechanisms, match the delivery and distribution to the audience, and evaluate the results." This statement is repeated in each grade cluster and course.

Agency Response. The individual was referring to an earlier version of the TEKS that contained basic understandings. The TEA clarified the introduction statement at the Kindergarten-Grade 2 level, as well as in all grade clusters and courses.

Subchapter C. High School.

§126.22. Computer Science I (One Credit).

Issue: appropriate language for Computer Science I.

Comment. Several individuals commented that language in subsection (c)(1)(F) be changed by omitting "source, and object codes" to read "differentiate among the levels of programming languages including machine, assembly, high-level compiled and interpreted languages."

Agency Response. The TEA agrees with the comments and recommended changes have been made.

Comment. Several individuals commented that subsection (c)(1)(G), filed as proposed, be omitted because it is not appropriate for the course.

Agency Response. The TEA agrees with the comments and recommended changes have been made.

Comment. Several individuals commented that language in subsection (c)(3)(C) be changed by omitting the word "codes" to make the statement more appropriate.

Agency Response. The TEA agrees with the comments. Language was omitted and the statement was rephrased to clarify its meaning.

Comment. Several individuals commented that the phrase "with appropriate supervision" be omitted in subsection (c)(4) and (5) because it is unnecessary. The phrase implies that teachers would not provide supervision and that is not the case. In addition, the student at the high school level must assume responsibility for appropriate use, which is what is taught in the technology foundations section of this curriculum area.

Agency Response. The text was not changed. The intent of the phrase "with appropriate supervision" throughout the document in Kindergarten-Grade 12 is to stress the importance of having access to the Internet appropriately supervised. It is the responsibility of the local district to determine what is "appropriate supervision."

Comment. An individual commented that the word "including" be changed to "such as" and the word "and" be changed to "or" in subsection (c)(7)(A) to be worded more appropriately.

Agency Response. The TEA agrees with the comments and recommended changes have been made.

Comment. An individual commented that language in subsection (c)(7)(D) be changed to "codes using various data types." Do not list the types so that there is flexibility in the types of computer languages that teachers can choose to teach.

Agency Response. The TEA agrees with the comment and recommended changes have been made.

Comment. Several individuals commented that the phrase "as well as static, dynamic, and pointer variables" in subsection (c)(7)(D) be omitted because the variables are Computer Science II concepts.

Agency Response. The TEA agrees with the comments and recommended changes have been made.

Comment. An individual commented that the phrase "such as counters, headers, or robust numeric input" be omitted from subsection (c)(7)(G) to allow for flexibility in the types of computer languages that teachers can choose to teach.

Agency Response. The TEA agrees with the comment and recommended changes have been made.

Comment. Several individuals commented that subsection (c)(7)(I), filed as proposed, be deleted because the text is inappropriate for Computer Science I.

Agency Response. The TEA agrees with the comments and recommended changes have been made.

Comment. An individual commented that subsection (c)(11)(B) be omitted.

Agency Response. The TEA does not agree with the comment. The TEKS for technology applications are guidelines for an enrichment curriculum.

Issue: content and language of Computer Science I.

Comment. An individual commented that the guidelines are fairly flexible, but that in some areas teachers could find themselves locked in and outdated when changes happen in the future. There are areas that are too specific for a dynamic topic like computer science and that some statements would be difficult to transfer into classroom activities. In addition, the overall document contains many fine new thoughts on technology. The individual recommended that the topics be organized so related topics are put together and placed in sequence of natural development. If the order cannot be changed, the individual recommended that it be noted that the TEKS for technology applications do not represent a teaching sequence.

Agency Response. The TEA does not agree to reorganize the topics. The TEKS for technology applications are guidelines for an enrichment curriculum. The knowledge and skills do not represent a teaching sequence.

Comment. Several individuals commented that including the knowledge and skills used in all grade ranges and courses added too much to teach in the Computer Science I course.

Agency Response. The TEA is not recommending changes as a result of the comments. The TEKS for technology applications are guidelines for an enrichment curriculum. Teachers have flexibility in how to teach the TEKS.

Comment. An individual commented that the computer science courses look good as long as the major ideas are in the correct courses, either Computer Science I or II.

Agency Response. The TEA agrees with the comments; no changes to the text were necessary.

§126.23. Computer Science II.

Issue: appropriate language for Computer Science II.

Comment. Several individuals commented that the phrase "more than one" in subsection (c)(1)(B) be removed. Using more than one contemporary language might be more appropriate for third year computer science.

Agency Response. The TEA agrees with the comments. The language has been changed to read "demonstrate coding proficiency in contemporary programming languages including an object-oriented language; and." This change provides flexibility to schools.

Comment. Several individuals commented that the word "codes" be omitted in subsection (c)(3)(C) to make the statement more appropriate.

Agency Response. The TEA agrees with the comments. Language has been omitted and the statement has been rephrased to clarify its meaning.

Comment. An individual commented that subsection (c)(3)(D) be omitted.

Agency Response. The TEA does not agree with the comment. The TEKS for technology applications are guidelines for an enrichment curriculum. Teachers have flexibility in how to teach the TEKS.

Comment. Several individuals commented that the phrase "with appropriate supervision" in subsection (c)(4) and (5) be omitted because it is unnecessary. The phrase implies that teachers would not provide supervision and that is not the case. In addition, the student at the high school level must assume responsibility for appropriate use, which is what is taught in the technology foundations section of this curriculum area.

Agency Response. The text was not changed. The intent of the phrase "with appropriate supervision" throughout the document in Kindergarten-Grade 12 is to stress the importance of having access to the Internet appropriately supervised. It is the responsibility of the local district to determine what is "appropriate supervision."

Comment. Several individuals commented that subsection (c)(7)(I) be omitted because this is a concept for third year computer science that can be incorporated into an independent study computer science class.

Agency Response. This statement was not omitted but was reworded to provide more flexibility. The word "including" was changed to "such as" and the phrase "and support" was changed to "or support."

Comment. Several individuals commented that subsection (c)(7)(J) be deleted because this statement is appropriate for third year computer science. There is not enough time in Computer Science II to address this.

Agency Response. The TEA does not agree with the comments. Subsection (c)(7)(J) was not omitted in order to provide additional opportunities for students. Wording changes were made to make the statement more appropriate. The TEKS for technology applications are guidelines.

Comment. An individual commented that subsection (c)(11)(B) be omitted.

Agency Response. The TEA is not recommending changes as a result of the comment. The TEKS for technology applications are guidelines for an enrichment curriculum. Teachers have flexibility in how to teach the TEKS.

Issue: content of Computer Science II.

Comment. Several individuals commented that including knowledge and skills used in all grade ranges and courses added too much to teach in the Computer Science II course.

Agency Response. The TEA is not recommending changes as a result of the comment. The TEKS for technology applications are guidelines for an enrichment curriculum. Teachers have flexibility in how to teach the TEKS.

General Comments.

Comment. An individual commented that the TEKS for technology applications have come to the rescue for students and teachers. The use of instructional technology and the TEKS for technology applications will support efforts in preparing children for their future. It is important to continue to train teachers on how to use the 21st century tools. It is important to also teach them how to integrate technology into the curriculum.

Comment. An individual commented in support of the TEKS for career and technology education and technology applications.

Comment. An individual commented that the document exceeds what is expected for students to know and do at the high school level. The contents of Computer Science I and II are equivalent to upper-level college courses. Some of the performance descriptions for programming languages may become outdated soon.

Agency Response. The TEA is not recommending changes as a result of the comments. Several computer science knowledge and skills that were language specific have been changed.

Comment. An individual commented that the TEKS for technology applications do not meet the expectations of what students should know and be able to do. A concern was made regarding age-appropriate instruction. These knowledge and skills require significant technological knowledge on the part of the teachers.

Agency Response. The TEA is not recommending changes as a result of the comments. The TEKS for technology applications are part of the enrichment curriculum. Teachers may use these knowledge and skills as guidelines. Benchmarks at Grades 2, 5, and 8 provide flexibility for schools in implementing the TEKS.

Comment. An individual commented that the TEKS for technology applications is an excellent document and more than meets expectations for students in Prekindergarten-Grade 12. The strengths of the document include an excellent vision statement, challenging performance standards for each grade level, and a logical progression of well-organized, required skills from Prekindergarten-Grade 12. No changes were suggested, however, the individual would provide some processes to ensure that this curriculum be kept current and updated at least annually to keep up with changing technology.

Agency Response. The TEA is not recommending changes as a result of the comments.

Comment. An individual from the Texas Computer Education Association (TCEA) commented in favor of the TEKS.

Subchapter A. Elementary

19 TAC §§126.1-126.3

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§126.1. *Implementation of Texas Essential Knowledge and Skills for Technology Applications, Elementary.*

The provisions of this subchapter shall be effective September 1, 1998.

§126.2. *Technology Applications, Kindergarten-Grade 2.*

(a) Introduction.

(1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

(2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(b) Knowledge and skills.

(1) Foundations. The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

(A) use technology terminology appropriate to the task;

(B) start and exit programs as well as create, name, and save files; and

(C) use networking terminology such as on-line, network, or password and access remote equipment on a network such as a printer.

(2) Foundations. The student uses data input skills appropriate to the task. The student is expected to:

(A) use a variety of input devices such as mouse, keyboard, disk drive, modem, voice/sound recorder, scanner, digital video, CD-ROM, or touch screen;

(B) use proper keyboarding techniques such as correct hand and body positions and smooth and rhythmic keystroke patterns as grade-level appropriate;

(C) demonstrate touch keyboarding techniques for operating the alphabetic, numeric, punctuation, and symbol keys as grade-level appropriate;

(D) produce documents at the keyboard, proofread, and correct errors; and

(E) use language skills including capitalization, punctuation, spelling, word division, and use of numbers and symbols as grade-level appropriate.

(3) Foundations. The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) follow acceptable use policies when using computers; and

(B) model respect of intellectual property by not illegally copying software or another individual's electronic work.

(4) Information acquisition. The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

and (A) apply keyword searches to acquire information;

(B) select appropriate strategies to navigate and access information for research and resource sharing.

(5) Information acquisition. The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) acquire information including text, audio, video, and graphics; and

(B) use on-line help.

(6) Information acquisition. The student evaluates the acquired electronic information. The student is expected to:

(A) determine the success of strategies used to acquire electronic information; and

(B) determine the usefulness and appropriateness of digital information.

(7) Solving problems. The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) use software programs with audio, video, and graphics to enhance learning experiences; and

(B) use appropriate software, including the use of word processing and multimedia, to express ideas and solve problems.

(8) Solving problems. The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

(A) use communication tools to participate in group projects; and

(B) use electronic tools and research skills to build a knowledge base regarding a topic, task, or assignment.

(9) Solving problems. The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

(A) use software features, such as on-line help, to evaluate work progress; and

(B) use software features, such as slide show previews, to evaluate final product.

(10) Communication. The student formats digital information for appropriate and effective communication. The student is expected to:

(A) use font attributes, color, white space, and graphics to ensure that products are appropriate for the defined audience; and

(B) use font attributes, color, white space, and graphics to ensure that products are appropriate for the communication media including multimedia screen displays and printed materials.

(11) Communication. The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

(A) publish information in a variety of media including, but not limited to, printed copy or monitor display; and

(B) publish information in a variety of media including, but not limited to, stored files or video.

(12) Communication. The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

(A) select representative products to be collected and stored in an electronic evaluation tool; and

(B) evaluate the product for relevance to the assignment or task.

§126.3. Technology Applications, Grades 3-5.

(a) Introduction.

(1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

(2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(b) Knowledge and skills.

(1) Foundations. The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

(A) use technology terminology appropriate to the task;

(B) save and delete files, uses menu options and commands, and work with more than one software application;

(C) identify and describe the characteristics of digital input, processing, and output;

(D) delineate and make necessary adjustments regarding compatibility issues including, but not limited to, digital file formats and cross platform connectivity; and

(E) access remote equipment on a network such as a printer or other peripherals.

(2) Foundations. The student uses data input skills appropriate to the task. The student is expected to:

(A) use a variety of input devices such as mouse, keyboard, disk drive, modem, voice/sound recorder, scanner, digital video, CD-ROM, or touch screen;

(B) use proper keyboarding techniques such as correct hand and body positions and smooth and rhythmic keystroke patterns;

(C) demonstrate touch keyboarding techniques for operating the alphabetic, numeric, punctuation, and symbol keys as grade-level appropriate;

(D) produce documents at the keyboard, proofread, and correct errors;

(E) use language skills including capitalization, punctuation, spelling, word division, and use of numbers and symbols as grade-level appropriate; and

(F) demonstrate an appropriate speed on short timed exercises depending upon the grade level and hours of instruction.

(3) Foundations. The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) follow acceptable use policies when using computers; and

(B) model respect of intellectual property by not illegally copying software or another individual's electronic work.

(4) Information acquisition. The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

(A) apply appropriate electronic search strategies in the acquisition of information including keyword and Boolean search strategies; and

(B) select appropriate strategies to navigate and access information on local area networks (LANs) and wide area networks (WANs), including the Internet and intranet, for research and resource sharing.

(5) Information acquisition. The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) acquire information including text, audio, video, and graphics; and

(B) use on-line help and documentation.

(6) Information acquisition. The student evaluates the acquired electronic information. The student is expected to:

(A) apply critical analysis to resolve information conflicts and validate information;

(B) determine the success of strategies used to acquire electronic information; and

(C) determine the usefulness and appropriateness of digital information.

(7) Solving problems. The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) use software programs with audio, video, and graphics to enhance learning experiences;

(B) use appropriate software to express ideas and solve problems including the use of word processing, graphics, databases, spreadsheets, simulations, and multimedia; and

(C) use a variety of data types including text, graphics, digital audio, and video.

(8) Solving problems. The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

(A) use communication tools to participate in group projects;

(B) use interactive technology environments, such as simulations, electronic science or mathematics laboratories, virtual museum field trips, or on-line interactive lessons, to manipulate information; and

(C) participate with electronic communities as a learner, initiator, contributor, or mentor.

(9) Solving problems. The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

(A) use software features, such as on-line help, to evaluate work progress; and

(B) use software features, such as slide show previews, to evaluate final product.

(10) Communication. The student formats digital information for appropriate and effective communication. The student is expected to:

(A) use font attributes, color, white space, and graphics to ensure that products are appropriate for the defined audience;

(B) use font attributes, color, white space, and graphics to ensure that products are appropriate for the communication media including multimedia screen displays, Internet documents, and printed materials; and

(C) use appropriate applications including, but not limited to, spreadsheets and databases to develop charts and graphs by using data from various sources.

(11) Communication. The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

(A) publish information in a variety of media including, but not limited to, printed copy, monitor display, Internet documents, and video; and

(B) use presentation software to communicate with specific audiences.

(12) Communication. The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

(A) select representative products to be collected and stored in an electronic evaluation tool;

(B) evaluate the product for relevance to the assignment or task; and

(C) create technology assessment tools to monitor progress of project such as checklists, timelines, or rubrics.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Subchapter B. Middle School

19 TAC §126.11, §126.12

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§126.11. Implementation of Texas Essential Knowledge and Skills for Technology Applications, Middle School.

The provisions of this subchapter shall supersede §75.51 of this title (relating to Computer Literacy) beginning September 1, 1998.

§126.12. Technology Applications (Computer Literacy), Grades 6-8.

(a) General requirements. Districts have the flexibility of offering technology applications (computer literacy) in a variety of settings, including a specific class or integrated into other subject areas.

(b) Introduction.

(1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

(2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(c) Knowledge and skills.

(1) Foundations. The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

(A) demonstrate knowledge and appropriate use of operating systems, software applications, and communication and networking components;

(B) compare, contrast, and appropriately use the various input, processing, output, and primary/secondary storage devices;

(C) demonstrate the ability to select and use software for a defined task according to quality, appropriateness, effectiveness, and efficiency;

(D) delineate and make necessary adjustments regarding compatibility issues including, but not limited to, digital file formats and cross platform connectivity;

(E) use technology terminology appropriate to the task;

(F) perform basic software application functions including, but not limited to, opening an application program and creating, modifying, printing, and saving documents;

(G) explain the differences between analog and digital technology systems and give examples of each;

(H) use terminology related to the Internet appropriately including, but not limited to, electronic mail (e-mail), Uniform Resource Locators (URLs), electronic bookmarks, local area networks (LANs), wide area networks (WANs), World Wide Web (WWW) page, and HyperText Markup Language (HTML); and

(I) compare and contrast LANs, WANs, Internet, and intranet.

(2) Foundations. The student uses data input skills appropriate to the task. The student is expected to:

(A) demonstrate proficiency in the use of a variety of input devices such as mouse/track pad, keyboard, microphone, digital camera, printer, scanner, disk/disc, modem, CD-ROM, or joystick;

(B) demonstrate keyboarding proficiency in technique and posture while building speed;

(C) use digital keyboarding standards for data input such as one space after punctuation, the use of em/en dashes, and smart quotation marks; and

(D) develop strategies for capturing digital files while conserving memory and retaining image quality.

(3) Foundations. The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) discuss copyright laws/issues and model ethical acquisition and use of digital information, citing sources using established methods;

(B) demonstrate proper etiquette and knowledge of acceptable use while in an individual classroom, lab, or on the Internet and intranet;

(C) describe the consequences regarding copyright violations including, but not limited to, computer hacking, computer piracy, intentional virus setting, and invasion of privacy;

(D) identify the impact of technology applications on society through research, interviews, and personal observation; and

(E) demonstrate knowledge of the relevancy of technology to future careers, life-long learning, and daily living for individuals of all ages.

(4) Information acquisition. The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

(A) use strategies to locate and acquire desired information on LANs and WANs, including the Internet, intranet, and collaborative software; and

(B) apply appropriate electronic search strategies in the acquisition of information including keyword and Boolean search strategies.

(5) Information acquisition. The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) identify, create, and use files in various formats such as text files, bitmapped/vector graphics, image, video, and audio files;

(B) demonstrate the ability to access, operate, and manipulate information from secondary storage and remote devices including CD-ROM/laser discs and on-line catalogs; and

(C) use on-line help and other documentation.

(6) Information acquisition. The student evaluates the acquired electronic information. The student is expected to:

(A) determine and employ methods to evaluate the electronic information for accuracy and validity;

(B) resolve information conflicts and validate information through accessing, researching, and comparing data; and

(C) demonstrate the ability to identify the source, location, media type, relevancy, and content validity of available information.

(7) Solving problems. The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) plan, create, and edit documents created with a word processor using readable fonts, alignment, page setup, tabs, and ruler settings;

(B) create and edit spreadsheet documents using all data types, formulas and functions, and chart information;

(C) plan, create, and edit databases by defining fields, entering data, and designing layouts appropriate for reporting;

(D) demonstrate proficiency in the use of multimedia authoring programs by creating linear or non-linear projects incorporating text, audio, video, and graphics;

(E) create a document using desktop publishing techniques including, but not limited to, the creation of multi-column or multi-section documents with a variety of text-wrapped frame formats;

(F) differentiate between and demonstrate the appropriate use of a variety of graphic tools found in draw and paint applications;

(G) integrate two or more productivity tools into a document including, but not limited to, tables, charts and graphs, graphics from paint or draw programs, and mail merge;

(H) use interactive virtual environments, appropriate to level, such as virtual reality or simulations;

(I) use technical writing strategies to create products such as a technical instruction guide; and

(J) use foundation and enrichment curricula in the creation of products.

(8) Solving problems. The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

(A) participate with electronic communities as a learner, initiator, contributor, and teacher/mentor;

(B) complete tasks using technological collaboration such as sharing information through on-line communications;

(C) use groupware, collaborative software, and productivity tools to create products;

(D) use technology in self-directed activities by sharing products for defined audiences; and

(E) integrate acquired technology applications skills, strategies, and use of the word processor, database, spreadsheet, telecommunications, draw, paint, and utility programs into the foundation and enrichment curricula.

(9) Solving problems. The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

(A) design and implement procedures to track trends, set timelines, and review/evaluate progress for continual improvement in process and product; and

(B) resolve information conflicts and validate information through research and comparison of data.

(10) Communication. The student formats digital information for appropriate and effective communication. The student is expected to:

(A) use productivity tools to create effective document files for defined audiences such as slide shows, posters, multimedia presentations, newsletters, brochures, or reports;

(B) demonstrate the use of a variety of layouts in a database to communicate information appropriately including horizontal and vertical layouts;

(C) create a variety of spreadsheet layouts containing descriptive labels and page settings;

(D) demonstrate appropriate use of fonts, styles, and sizes, as well as effective use of graphics and page design to effectively communicate; and

(E) match the chart style to the data when creating and labeling charts.

(11) Communication. The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

(A) publish information in a variety of ways including, but not limited to, printed copy, monitor display, Internet documents, and video;

(B) design and create interdisciplinary multimedia presentations for defined audiences including audio, video, text, and graphics; and

(C) use telecommunication tools for publishing such as Internet browsers, video conferencing, or distance learning.

(12) Communication. The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

(A) design and implement procedures to track trends, set timelines, and review and evaluate the product using technology tools such as database managers, daily/monthly planners, and project management tools;

(B) determine and employ technology specifications to evaluate projects for design, content delivery, purpose, and audience, demonstrating that process and product can be evaluated using established criteria or rubrics;

(C) select representative products to be collected and stored in an electronic evaluation tool; and

(D) evaluate the product for relevance to the assignment or task.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Subchapter C. High School

19 TAC §§126.21-126.29

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§126.21. Implementation of Texas Essential Knowledge and Skills for Technology Applications, High School.

The provisions of this subchapter shall supersede §75.123 of this title (relating to Computer Science) beginning September 1, 1998.

§126.22. Computer Science I (One Credit).

(a) General requirements. The prerequisite for this course is proficiency in the knowledge and skills described in §126.12(c) of this title (relating to Computer Literacy, Grades 6-8). In addition, it is recommended that students have proficiency in the knowledge and skills for Algebra I identified in §111.32(b) of this title (relating to Algebra I (One Credit)) or the equivalent knowledge and skills. This course is recommended for students in Grades 9-12. School districts may use the knowledge and skills described in subsection (c) of this section, the computer science course descriptions for the

College Board Advanced Placement or International Baccalaureate programs, or a combination thereof.

(b) Introduction.

(1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

(2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(c) Knowledge and skills.

(1) Foundations. The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

(A) demonstrate knowledge and appropriate use of operating systems, software applications, and communication and networking components;

(B) compare, contrast, and appropriately use the various input, processing, output, and primary/secondary storage devices;

(C) make decisions regarding the selection, acquisition, and use of software taking under consideration its quality, appropriateness, effectiveness, and efficiency;

(D) delineate and make necessary adjustments regarding compatibility issues including, but not limited to, digital file formats and cross platform connectivity;

(E) differentiate current programming languages, discuss the use of the languages in other fields of study, and demonstrate knowledge of specific programming terminology and concepts;

(F) differentiate among the levels of programming languages including machine, assembly, high-level compiled and interpreted languages; and

(G) demonstrate coding proficiency in a contemporary programming language.

(2) Foundations. The student uses data input skills appropriate to the task. The student is expected to:

(A) demonstrate proficiency in the use of a variety of input devices such as keyboard, scanner, voice/sound recorder, mouse, touch screen, or digital video by appropriately incorporating such components into the product; and

(B) use digital keyboarding standards for the input of data.

(3) Foundations. The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) discuss copyright laws/issues and model ethical acquisition and use of digital information, citing sources using established methods;

(B) demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and intranet;

(C) investigate measures, such as passwords or virus detection/prevention, to protect computer systems and databases from unauthorized use and tampering; and

(D) discuss the impact of computer programming on the World Wide Web (WWW) community.

(4) Information acquisition. The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

(A) use local area networks (LANs) and wide area networks (WANs), including the Internet and intranet, in research and resource sharing; and

(B) construct appropriate electronic search strategies in the acquisition of information including keyword and Boolean search strategies.

(5) Information acquisition. The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) acquire information in and knowledge about electronic formats including text, audio, video, and graphics;

(B) use a variety of resources, including foundation and enrichment curricula, together with various productivity tools to gather authentic data as a basis for individual and group programming projects; and

(C) design and document sequential search algorithms for digital information storage and retrieval.

(6) Information acquisition. The student evaluates the acquired electronic information. The student is expected to:

(A) determine and employ methods to evaluate the design and functionality of the process using effective coding, design, and test data; and

(B) implement methods for the evaluation of the information using defined rubrics.

(7) Solving problems. The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) apply problem-solving strategies such as design specifications, modular top-down design, step-wise refinement, or algorithm development;

(B) use visual organizers to design solutions such as flowcharts or schematic drawings;

(C) develop sequential and iterative algorithms and codes programs in prevailing computer languages to solve practical problems modeled from school and community;

(D) code using various data types;

(E) demonstrate effective use of predefined input and output procedures for lists of computer instructions including procedures to protect from invalid input;

(F) develop coding with correct and efficient use of expressions and assignment statements including the use of standard/user-defined functions, data structures, operators/proper operator precedence, and sequential/conditional/repetitive control structures;

(G) create and use libraries of generic modular code to be used for efficient programming;

(H) identify actual and formal parameters and use value and reference parameters;

(I) use control structures such as conditional statements and iterated, pretest, and posttest loops;

(J) use sequential, conditional, selection, and repetition execution control structures such as menu-driven programs that branch and allow user input; and

(K) identify and use structured data types of one-dimensional arrays, records, and text files.

(8) Solving problems. The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

(A) participate with electronic communities as a learner, initiator, contributor, and teacher/mentor;

(B) demonstrate proficiency in, appropriate use of, and navigation of LANs and WANs for research and for sharing of resources;

(C) extend the learning environment beyond the school walls with digital products created to increase teaching and learning in the foundation and enrichment curricula; and

(D) participate in relevant, meaningful activities in the larger community and society to create electronic projects.

(9) Solving problems. The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

(A) design and implement procedures to track trends, set timelines, and review/evaluate progress for continual improvement in process and product;

(B) use correct programming style to enhance the readability and functionality of the code such as spacing, descriptive identifiers, comments, or documentation;

(C) seek and respond to advice from peers and professionals in delineating technological tasks;

(D) resolve information conflicts and validate information through accessing, researching, and comparing data; and

(E) create technology specifications for tasks/evaluation rubrics and demonstrate that products/product quality can be evaluated against established criteria.

(10) Communication. The student formats digital information for appropriate and effective communication. The student is expected to:

(A) annotate coding properly with comments, indentation, and formatting; and

(B) create interactive documents using modeling, simulation, and hypertext.

(11) Communication. The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

(A) publish information in a variety of ways including, but not limited to, printed copy and monitor displays; and

(B) publish information in a variety of ways including, but not limited to, software, Internet documents, and video.

(12) Communication. The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

(A) write technology specifications for planning/evaluation rubrics documenting variables, prompts, and programming code internally and externally;

(B) seek and respond to advice from peers and professionals in evaluating the product; and

(C) debug and solve problems using reference materials and effective strategies.

§126.23. Computer Science II (One Credit).

(a) General requirements. The prerequisite for this course is proficiency in the knowledge and skills for Computer Science I as identified in §126.22(c) of this title (relating to Computer Science I (One Credit)). This course is recommended for students in Grades 10-12. School districts may use the knowledge and skills described in subsection (c) of this section, the computer science course descriptions for the College Board Advanced Placement or International Baccalaureate programs, or a combination thereof.

(b) Introduction.

(1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

(2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(c) Knowledge and skills.

(1) Foundations. The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

(A) identify object-oriented data types and delineate the advantages/disadvantages of object data;

(B) demonstrate coding proficiency in contemporary programming languages including an object-oriented language; and

(C) survey the issues accompanying the development of large software systems such as design/implementation teams, software validation/testing, and risk assessment.

(2) Foundations. The student uses data input skills appropriate to the task. The student is expected to:

(A) demonstrate proficiency in the use of a variety of input devices such as keyboard, scanner, voice/sound recorder, mouse, touch screen, or digital video by appropriately incorporating such components into the product; and

(B) use digital keyboarding standards for the input of data.

(3) Foundations. The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) discuss copyright laws/issues and model ethical acquisition and use of digital information, citing sources using established methods;

(B) demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and intranet;

(C) investigate measures, such as passwords or virus detection/prevention, to protect computer systems and databases from unauthorized use and tampering; and

(D) code modules for the World Wide Web (WWW) community.

(4) Information acquisition. The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

(A) construct search algorithms including linear and binary searches; and

(B) compare and contrast search and sort algorithms including linear and binary searches for different purposes and search time.

(5) Information acquisition. The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) acquire information in and knowledge about electronic formats including text, audio, video, and graphics; and

(B) use a variety of resources, including foundation and enrichment curricula, together with various productivity tools to gather authentic data as a basis for individual and group programming projects.

(6) Information acquisition. The student evaluates the acquired electronic information. The student is expected to:

(A) determine and employ methods to evaluate the design and functionality of the process using effective coding, design, and test data; and

(B) implement methods for the evaluation of the information using defined rubrics.

(7) Solving problems. The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) use appropriately and trace recursion in program design comparing invariant, iterative, and recursive algorithms;

(B) manipulate data structures using string processing;

(C) use notation for language definition such as syntax diagrams or Backus-Naur forms;

(D) identify, describe, and use sequential/non-sequential files; multidimensional arrays and arrays of records; and quadratic sort algorithms such as selection, bubble, or insertion, and more efficient algorithms including merge, shell, and quick sorts;

(E) create robust programs with increased emphasis on design, style, clarity of expression and documentation for ease of maintenance, program expansion, reliability, and validity;

(F) apply methods for computing iterative approximations and statistical algorithms;

(G) define and develop code using the concepts of abstract data types including stacks, queues, linked lists, trees, graphs, and information hiding;

(H) identify and describe the correctness and complexity of algorithms such as divide and conquer, backtracking, or greedy algorithms;

(I) develop software to solve a school or community problem such as customer relations, design, modular programming, documentation, validation, marketing, or support; and

(J) research advanced computer science concepts such as applied artificial intelligence, expert systems, robotics, depth-first/breadth-first and heuristic search strategies, multitasking operating systems, or computer architecture, such as reduced instruction set computer (RISC) and complex instruction set computer (CISC).

(8) Solving problems. The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

(A) participate with electronic communities as a learner, initiator, contributor, and teacher/mentor;

(B) demonstrate proficiency in, appropriate use of, and navigation of local area networks (LANs) and wide area networks (WANs) for research and for sharing of resources;

(C) extend the learning environment beyond the school walls with digital products created to increase teaching and learning in the foundation and enrichment curricula; and

(D) participate in relevant, meaningful activities in the larger community and society to create electronic products.

(9) Solving problems. The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

(A) demonstrate the ability to read and modify large programs including the design description and process development;

(B) analyze algorithms using "big-O" notation, best, average, and worst case space techniques;

(C) compare and contrast design methodologies including top-down and bottom-up;

(D) analyze models used in development of software including software life cycle models, design objectives, documentation, and support; and

(E) seek and respond to advice from peers and professionals in delineating technological tasks.

(10) Communication. The student formats digital information for appropriate and effective communication. The student is expected to:

(A) annotate coding properly with comments, indentation, and formatting; and

(B) create interactive documents using modeling, simulation, and hypertext.

(11) Communication. The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

(A) publish information in a variety of ways including, but not limited to, printed copy and monitor displays; and

(B) publish information in a variety of ways including, but not limited to, software, Internet documents, and video.

(12) Communication. The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

(A) write technology specifications for planning and evaluation rubrics documenting variables, prompts, and program internally and externally;

(B) seek and respond to advice from peers and professionals in evaluating the product; and

(C) debug and solve problems using reference materials and effective strategies.

§126.24. Desktop Publishing (One Credit.)

(a) General requirements. The prerequisite for this course is proficiency in the knowledge and skills described in §126.12(c) of this title (relating to Computer Literacy, Grades 6-8). This course is recommended for students in Grades 9-12.

(b) Introduction.

(1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

(2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(c) Knowledge and skills.

(1) Foundations. The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

(A) demonstrate knowledge and appropriate use of operating systems, software applications, and communication and networking components;

(B) compare, contrast, and appropriately use the various input, processing, output, and primary/secondary storage devices;

(C) make decisions regarding the selection, acquisition, and use of software taking under consideration its quality, appropriateness, effectiveness, and efficiency;

(D) delineate and make necessary adjustments regarding compatibility issues including, but not limited to, digital file formats and cross platform connectivity; and

(E) demonstrate knowledge of technology terminology and concepts relating them to desktop publishing.

(2) Foundations. The student uses data input skills appropriate to the task. The student is expected to:

(A) demonstrate proficiency in the use of a variety of input devices such as mouse, keyboard, disk/disc, modem, scanner, voice/sound recorder, or digital camera by appropriately incorporating such components into the product; and

(B) use digital keyboarding standards in word processing such as one space after punctuation, the use of em/en dashes, and smart quotation marks.

(3) Foundations. The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) discuss copyright laws/issues and model ethical acquisition and use of digital information, citing sources using established methods;

(B) demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and intranet; and

(C) analyze the impact of desktop publishing on society including concepts related to persuasiveness, marketing, and point of view.

(4) Information acquisition. The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

(A) use strategies to obtain print and digital information from a variety of electronic resources including, but not limited to, reference software, databases, and libraries of images, citing the source; and

(B) use strategies to navigate on and access information from local area networks (LANs), wide area networks (WANs), the Internet, and intranet.

(5) Information acquisition. The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) acquire information in electronic formats including text, audio, video, and graphics, citing the source; and

(B) demonstrate the ability to import and export elements from one program to another.

(6) Information acquisition. The student evaluates the acquired electronic information. The student is expected to:

(A) identify and employ a method to evaluate the information; and

(B) demonstrate skill in testing the accuracy and validity of the information.

(7) Solving problems. The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) use desktop publishing methods in foundation and enrichment curricula;

(B) identify the tasks in a project and use the tools needed for completion such as word processing, pagination, utility, indexing, graphics, or drawing programs;

(C) use electronic productivity tools such as the word processor to edit text including move, copy, cut and paste, and spell check;

(D) select and use the categories of type, font, size, style, and alignment appropriate for the task;

(E) apply the basic elements of page design including text, graphics, headlines, and white space;

(F) distinguish design requirements as they relate to purposes and audiences including one- surface objects, multiple or bound pages, stationery, book jackets/magazine covers, pamphlets, magazines, brochures, and labels; and

(G) read and use technical documentation.

(8) Solving problems. The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

(A) develop technical documentation related to desktop publishing;

(B) demonstrate the use of technology to participate in self-directed and practical activities;

(C) extend the learning environment beyond the classroom through the creation and sharing of electronically formatted and published documents via electronic networks;

(D) synthesize new information from data gathered from interviews, print, and electronic resources; and

(E) demonstrate that tasks can be accomplished through technological collaboration and participate with electronic communities as a learner, initiator, contributor, and teacher/mentor.

(9) Solving problems. The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

(A) create technology specifications for tasks and evaluation rubrics to evaluate process and product against established criteria;

(B) design and implement procedures to track trends, set timelines, and review/evaluate progress for continual improvement in process and product;

(C) resolve information conflicts and validate information through accessing, researching, and comparing data; and

(D) seek and respond to advice from peers in delineating technological tasks.

(10) Communication. The student formats digital information for appropriate and effective communication. The student is expected to:

(A) define the purpose of the product and identify the specified audience;

(B) use terms related to typography appropriately including categories of type and type contrasts;

(C) use the principles of page design to create a product including, but not limited to, leading/kerning, automatic text flow into linked columns, widows/orphans, and text wrap;

(D) create a master template to include page specifications and other repetitive tasks;

(E) apply the basics of type measurement for inches and picas;

(F) use type techniques as graphic elements such as drop cap, decorative letters, or embedded-text frames;

(G) apply color principles to communicate the mood of the product for the specific audience;

(H) incorporate the principles of basic design including, but not limited to, balance, contrast, dominant element, use of white space, consistency, repetition, alignment, and proximity;

(I) identify the parts and kinds of pages including inside margin, outside margin, gutter, title, and inside pages; and

(J) use a variety of strategies to create effective designs, such as varying line widths and patterns, and use manipulation tools to stretch, bend, screen, rotate, follow a path, or mirror type.

(11) Communication. The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

(A) use appropriate media for creating a knowledge base with a broad perspective and communicating to the worldwide community;

(B) use printing options such as tiling, color separations, collation, and previewing;

(C) distinguish design and printing requirements as they relate to purposes, audiences, and final output; and

(D) use styles (style sheets) including a variety of type specifications such as typeface, style, size, alignment, indents, and tabs.

(12) Communication. The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

(A) identify and employ a method to evaluate the project for design, content delivery, purpose, and audience;

(B) use electronic project management tools to set milestones for completing projects and reviewing progress;

(C) seek and respond to advice from peers in evaluating the product;

(D) create technology specifications for tasks and evaluation rubrics; and

(E) demonstrate that products and product quality can be evaluated against established criteria.

§126.25. Digital Graphics/Animation (One Credit).

(a) General requirements. The prerequisite is proficiency in the knowledge and skills described in §126.12(c) of this title (relating to Computer Literacy, Grades 6-8). This course is recommended for students in Grades 9-12.

(b) Introduction.

(1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

(2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(c) Knowledge and skills.

(1) Foundations. The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

(A) demonstrate knowledge and appropriate use of operating systems, software applications, and communication and networking components;

(B) compare, contrast, and appropriately use the various input, processing, output, and primary/secondary storage devices;

(C) make decisions regarding the selection, acquisition, and use of software taking under consideration its quality, appropriateness, effectiveness, and efficiency;

(D) delineate and make necessary adjustments regarding compatibility issues including, but not limited to, digital file formats and cross platform connectivity;

(E) use the vocabulary as it relates to digital graphics and animation software;

(F) distinguish between and correctly use process color (RGB and CMYK), spot color, and black/white;

(G) identify color mixing theories and apply these theories to the creation of new colors in the digital format;

(H) compare, contrast, and integrate the basic sound editing principles including the addition of effects and manipulation of wave forms;

(I) distinguish between and use the components of animation software programs including cast, score, stage, and the animation control panel;

(J) select and connect task-appropriate peripherals such as a printer, CD-ROM, digital camera, scanner, or graphics tablet; and

(K) distinguish and use the different animation techniques of path and cell animation.

(2) Foundations. The student uses data input skills appropriate to the task. The student is expected to:

(A) demonstrate proficiency in the use and graphical integration of a variety of input devices such as keyboard, scanner, mouse, graphic tablet with pen, or digital camera; and

(B) compare and contrast digital input devices.

(3) Foundations. The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) discuss copyright laws/issues and model ethical acquisition and use of digital information, citing sources using established methods;

(B) model respect of intellectual property when manipulating, morphing, and editing graphics, video, text, and sound;

(C) demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and intranet; and

(D) research the impact of digital graphics in society and as an art form.

(4) Information acquisition. The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

(A) use strategies to access research information from different resources, including local area networks (LANs), wide area networks (WANs), the Internet, and intranet; and

(B) obtain print and digital information from a variety of resources including, but not limited to, encyclopedias, databases, and libraries of images.

(5) Information acquisition. The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) use the Internet and retrieve information in electronic formats including text, audio, video, and graphics, citing the source;

(B) demonstrate the appropriate use of digital imaging, video integration, and sound in documents; and

(C) import sounds from a variety of sources including, but not limited to, audio CD, tape, and microphone.

(6) Information acquisition. The student evaluates the acquired electronic information. The student is expected to:

(A) compare and contrast the rules of composition such as rule of thirds or the golden section/rectangle with respect to harmony and balance as well as discord and drama;

(B) evaluate the fundamental concepts of a graphic design including composition and lighting;

(C) analyze the designs to decide the point of interest and the attributes that determine prominence and support of the subject; and

(D) distinguish among the categories of typefaces while recognizing and resolving conflicts that occur through combined usage.

(7) Solving problems. The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) combine graphics, images, and sound for foundation or enrichment curricular projects;

(B) integrate the productivity tools including, but not limited to, word processor, database, spreadsheet, telecommunications, draw, paint, and utility programs into the digital graphics;

(C) use perspective including backgrounds, light, shades/shadows, and scale to capture a focal point and create depth;

(D) use the basic principles of proportion, balance, variety, emphasis, harmony, symmetry, and unity in type, color, size, line thickness, shape, and space;

(E) use repetition of color, shape, texture, spatial relationships, line thickness, and size to develop organization and strengthen the unity of a product;

(F) create three-dimensional effects using foreground, middle distance, and background images;

(G) apply a variety of color schemes to digital designs including monochromatic, analogous, complementary, primary/secondary triads, cool/warm colors, and split complements;

(H) use the basic concepts of color and design theory to work in a bitmapped mode, creating backgrounds, characters, and other case members as needed for the animation;

(I) use the appropriate scripting language to create an animation or movie;

(J) read, use, and develop technical documentation;

(K) edit files using appropriate digital editing tools and established design principles including consistency, repetition, alignment, proximity, ratio of text to white space, image file size, color use, font size, type, and style; and

(L) use a variety of techniques to edit, manipulate, and change sound.

(8) Solving problems. The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

(A) demonstrate the use of technology to participate in self-directed, meaningful activities in the larger community and society;

(B) demonstrate proficiency in, appropriate use of, and navigation of LANs, WANs, the Internet, and intranet for research and for sharing of resources; and

(C) participate with electronic communities as a learner, initiator, contributor, and teacher/mentor.

(9) Solving problems. The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

(A) create technology specifications for tasks and rubrics for the evaluation of products and product quality against established criteria;

(B) design and implement procedures to track trends, set timelines, and review/evaluate progress for continual improvement in process and product;

(C) evaluate data by using criteria appropriate for the purpose;

(D) resolve information conflicts and validate information through accessing, researching, and comparing data; and

(E) seek and respond to advice from peers in delineating technological tasks.

(10) Communication. The student formats digital information for appropriate and effective communication. The student is expected to:

(A) identify pictorial qualities in a design such as shape and form, space and depth, or pattern and texture to create visual unity and desired effects in designs;

(B) use a variety of lighting techniques including shadows and shading to create an effect;

(C) define the design attributes and requirements of products created for a variety of purposes including posters, billboards, business cards, stationery, book jackets, folders, booklets, pamphlets, brochures, and magazines; and

(D) use proximity and alignment to create a visual connection with other elements.

(11) Communication. The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

(A) publish information in a variety of ways including, but not limited to, printed copy or monitor display; and

(B) publish information in saved files, Internet documents, CD-ROM discs, or video.

(12) Communication. The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

(A) determine and employ technology specifications to evaluate projects for design, content delivery, purpose, and audience; and

(B) seek and respond to advice from peers in evaluating the product.

§126.26. *Multimedia (One Credit).*

(a) General requirements. The prerequisite for this course is proficiency in the knowledge and skills described in §126.12(c) of this title (relating to Computer Literacy, Grades 6-8). This course is recommended for students in Grades 9-12.

(b) Introduction.

(1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

(2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(c) Knowledge and skills.

(1) Foundations. The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

(A) demonstrate knowledge and appropriate use of operating systems, software applications, and communication and networking components;

(B) analyze demands for accomplishing multimedia tasks to appropriately use input, processing, output, and primary/secondary storage devices;

(C) make decisions regarding the selection, acquisition, and use of software in a multimedia classroom/lab taking under consideration its quality, appropriateness, effectiveness, and efficiency;

(D) delineate and make necessary adjustments regarding compatibility issues including, but not limited to, digital file formats and cross platform connectivity;

(E) use necessary vocabulary related to multimedia;

(F) install and configure appropriate software;

(G) distinguish between and correctly use process color (RGB and CMYK), spot color, and black/white;

(H) identify color mixing theories and apply these theories to the creation of new colors in the digital format;

(I) identify and distinguish among the basic sound editing principles including the addition of effects and manipulation of the wave form;

(J) identify and use compression schemes for photo, animation, video, and graphics; and

(K) distinguish between and determine the appropriate application of bitmapped and vector graphics into a multimedia project.

(2) Foundations. The student uses data input skills appropriate to the task. The student is expected to:

(A) demonstrate proficiency in the use of a variety of electronic input devices including the mouse, keyboard, scanner, voice/sound recorder, disk/disc, video, and digital camera by creating files to be used in multimedia products;

(B) use digital keyboarding standards for data input such as one space after punctuation, the use of em/en dashes, and smart quotation marks;

(C) use strategies when digitally capturing files that conserve memory and retain the image integrity; and

(D) differentiate among audio input.

(3) Foundations. The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) discuss copyright laws/issues and model ethical acquisition and use of digital information, citing sources using established methods;

(B) demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and intranet;

(C) model respect of intellectual property when manipulating, morphing, or editing graphics, video, text, and sound; and

(D) provide examples of the role of multimedia in society.

(4) Information acquisition. The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

(A) use strategies to access research information from different resources, including local area networks (LANs), wide area networks (WANs), the Internet, and intranet; and

(B) apply appropriate electronic search strategies in the acquisition of information including keyword and Boolean search strategies.

(5) Information acquisition. The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) acquire information in electronic formats including text, audio, video, and graphics, citing the source; and

(B) identify, create, and use available file formats including text, image, video (analog and digital), and audio files.

(6) Information acquisition. The student evaluates the acquired electronic information. The student is expected to:

(A) identify and employ a method to evaluate the design, functionality, and accuracy of the accessed information; and

(B) use fundamental concepts of graphic design including visual composition and lighting when analyzing multimedia.

(7) Solving problems. The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) use foundation and enrichment curricula in the creation of multimedia products;

(B) select and integrate computer-based productivity tools, including, but not limited to, word processor, database, spreadsheet, telecommunications, draw, paint, and utility programs to develop and modify solutions to problems and to create new knowledge for multimedia products;

(C) use technology tools to create a knowledge base with a broad perspective;

(D) apply color principles to communicate the mood of the product for the specific audience;

(E) integrate path and cell animation modules appropriately into multimedia products;

(F) use the appropriate scripting language to create a multimedia sequence;

(G) edit files using established design principles including consistency, repetition, alignment, proximity, ratio of text to white space, image file size, color use, font size, type, and style; and

(H) read and use technical documentation.

(8) Solving problems. The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

(A) participate with electronic communities as a learner, initiator, contributor, and teacher/mentor and use technology to participate in self-directed and practical activities in the larger community and society;

(B) demonstrate proficiency in, appropriate use of, and navigation of LANs, WANs, the Internet, and intranet for research and for sharing of resources;

(C) integrate and use efficiently and effectively a variety of multimedia programs and tools including linear/non-linear authoring tools, image/video editing tools, compression programs, draw/paint/text creation tools;

(D) extend the learning environment beyond the school walls through the creation and linking of multimedia products via electronic networks;

(E) develop technical documentation related to multimedia;

(F) participate in different roles and jobs of a multimedia production crew including project manager, lead programmer, writer, art director, sound engineer, researcher, animator, and presenter;

(G) distinguish among and appropriately integrate 3-D modeling, animation, and rendering software into multimedia products;

(H) import video into the digital format for integration into multimedia products; and

(I) capture, record, and integrate sampled and Musical Instrument Digital Interface (MIDI) sound in different sound rates, resolutions, and channels.

(9) Solving problems. The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

(A) design and implement procedures to track trends, set timelines, and review/evaluate progress for continual improvement in process and product;

(B) seek and respond to advice from peers and professionals in delineating technological tasks;

(C) create technology specifications for tasks and rubrics to evaluate products and product quality against established criteria; and

(D) resolve information conflicts and validate information by accessing, researching, and comparing data and demonstrate that products and product quality can be evaluated against established criteria.

(10) Communication. The student formats digital information for appropriate and effective communication. The student is expected to:

(A) identify quality in multimedia design such as consistency, alignment, repetition, and proximity;

(B) use content selection and presentation for the defined audience and communication purpose; and

(C) format the multimedia project according to defined output specifications including target audience and viewing environment.

(11) Communication. The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

(A) publish information in a variety of ways including, but not limited to, printed copy or monitor display; and

(B) publish information in saved files, Internet documents, CD-ROM discs, or video.

(12) Communication. The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

(A) determine and employ technology specifications to evaluate projects for design, content delivery, purpose, and audience; and

(B) seek and respond to input from peers and professionals in evaluating the product.

§126.27. Video Technology (One Credit).

(a) General requirements. The prerequisite for this course is proficiency in the knowledge and skills described in §126.12(c) of this title (relating to Computer Literacy, Grades 6-8). This course is recommended for students in Grades 9-12.

(b) Introduction.

(1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

(2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technolo-

gies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(c) Knowledge and skills.

(1) Foundations. The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

(A) demonstrate knowledge and appropriate use of digital and analog video systems, software applications, and communication and networking components;

(B) compare, contrast, and appropriately use the various input, processing, output, and primary/secondary storage devices;

(C) make decisions regarding the selection, acquisition, and use of software taking under consideration its quality, appropriateness, effectiveness, and efficiency;

(D) delineate and make necessary adjustments regarding compatibility issues including, but not limited to, digital file formats and cross platform connectivity;

(E) use vocabulary related to video technology; and

(F) compare and contrast linear and nonlinear editing.

(2) Foundations. The student uses data input skills appropriate to the task. The student is expected to:

(A) outline differences among electronic input devices as related to video technology; and

(B) demonstrate proficiency in the use of a variety of electronic input devices including the keyboard, mouse, disk/disc, modem, scanner, voice/sound recorder, and digital video by incorporating such components into the video-related product.

(3) Foundations. The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) discuss copyright laws/issues and model ethical acquisition and use of digital and video information, citing sources using established methods;

(B) demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and intranet; and

(C) analyze the impact of video technology on society.

(4) Information acquisition. The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

(A) use strategies to access research information from different resources including local area networks (LANs), wide area networks (WANs), the Internet, and intranet; and

(B) construct and use appropriate electronic search strategies in the acquisition of information including keyword and Boolean search strategies.

(5) Information acquisition. The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) acquire information in electronic formats including text, audio, video, and graphics, citing the source;

(B) engage in preproduction planning by surveying the site and obtaining necessary permits and release forms; and

(C) acquire information from on-line help and other forms of documentation.

(6) Information acquisition. The student evaluates the acquired electronic information. The student is expected to:

(A) identify and employ a method to evaluate the information; and

(B) demonstrate skill in testing the accuracy and validity of the information.

(7) Solving problems. The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) use foundation and enrichment curricula in the development of video and digital products;

(B) integrate productivity tools including, but not limited to, video editor, sound editor, word processor, database, spreadsheet, telecommunications, draw, paint, and utility programs to develop and modify solutions to problems for video productions;

(C) create video technology products for a variety of purposes and audiences; and

(D) develop technical documentation related to video technology.

(8) Solving problems. The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

(A) participate with electronic communities as a learner, initiator, contributor, and teacher/mentor;

(B) demonstrate proficiency in, appropriate use of, and navigation of LANs and WANs, the Internet, and intranet for research and for sharing of resources;

(C) participate in relevant activities in the larger community and society to create electronic projects;

(D) extend the learning environment beyond the school walls through the creation and sharing of digital and video products via electronic networks;

(E) demonstrate knowledge in composition including ratio of image to frame, position in frame, line of gaze, pan/tilts, movement, and perspective;

(F) demonstrate proficiency in basic camera techniques including zoom, focus, iris control, white balance, and filters;

(G) create visual communication by applying the strategies of script writing;

(H) engage in preproduction activities including storyboarding, script writing, production, contracting, and scheduling;

(I) utilize lighting techniques including key, fill, and backlight, using incident/reflected light, color temperatures, and filter use;

(J) use audio techniques, including microphone variances and audio mixers, and edit and integrate digital sounds;

(K) participate in different roles and jobs of a production crew including executive producer, producer, director, engineer, script writer, editor, camera person, presenters, and audio technicians;

(L) apply appropriate post production techniques including editing and creating control and/or time coded tracks, transitions, audio levels, background music, and special sound effects;

(M) apply 2-D and 3-D animation effects to video;

(N) use character generators, fonts, colors, and principles of compositions to create graphic images;

(O) create captions and/or titles for video and graphics;

(P) use different compression techniques, and/or programs; and

(Q) demonstrate knowledge in outputting digital video to analog and analog video to digital.

(9) Solving problems. The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

(A) design and implement procedures to track trends, set timelines, and review/evaluate progress for continual improvement in process and product;

(B) seek and respond to advice from peers and professionals in delineating technological tasks;

(C) create technology specifications for tasks and evaluation rubrics;

(D) resolve information conflicts and validate information by accessing, researching, and comparing data; and

(E) monitor process and product quality using established criteria.

(10) Communication. The student formats digital information for appropriate and effective communication. The student is expected to:

(A) use font attributes and color to ensure that products are appropriate for the defined audience and communication purpose;

(B) use white space and graphics to ensure that products are appropriate for the defined audience and communication purpose;

(C) use camera perspective to ensure that products are appropriate for the defined audience and communication purpose; and

(D) use content selection and presentation to ensure that products are appropriate for the defined audience and communication purpose.

(11) Communication. The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

(A) publish information in a variety of ways including, but not limited to, printed copy or monitor display; and

(B) publish information in saved files, Internet documents, CD-ROM discs, or video.

(12) Communication. The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

(A) evaluate the project for design, content delivery, purpose, and audience using established criteria;

(B) seek and respond to advice from peers and professionals in evaluating the product; and

(C) research the best method of distribution, number of copies of finished product, and appropriate method for promoting product.

§126.28. Web Mastering (One Credit).

(a) General requirements. The prerequisite for this course is proficiency in the knowledge and skills described in §126.12(c) of this title (relating to Computer Literacy, Grades 6-8). This course is recommended for students in Grades 9-12.

(b) Introduction.

(1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

(2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(c) Knowledge and skills.

(1) Foundations. The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

(A) demonstrate knowledge and appropriate use of operating systems, software applications, and communication and networking components;

(B) compare, contrast, and use appropriately the various input, processing, output, and primary/secondary storage devices;

(C) make decisions regarding the selection, acquisition, and use of software taking under consideration its quality, appropriateness, effectiveness, and efficiency;

(D) delineate and make necessary adjustments regarding compatibility issues including, but not limited to, digital file formats and cross platform connectivity;

(E) use vocabulary related to web mastering and delineate between the Internet and an intranet;

(F) summarize the technical needs of a World Wide Web (WWW) server including Random Access Memory (RAM), hard disk capacity, Central Processing Unit (CPU) speed, methods of connectivity, and appropriate software; and

(G) summarize the development of Internet protocols including, but not limited to, hypertext transfer protocol (http), gopher, file transfer protocol (ftp), telnet, and wide area information system (wais).

(2) Foundations. The student uses data input skills appropriate to the task. The student is expected to:

(A) outline differences among a variety of electronic input devices; and

(B) demonstrate proficiency in the use of a variety of electronic input devices such as keyboard, scanner, voice/sound recorder, mouse, touch screen or digital video by incorporating such components while publishing WWW pages.

(3) Foundations. The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) discuss copyright laws/issues and model ethical acquisition and use of digital information, citing sources using established methods;

(B) demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and intranet; and

(C) analyze the impact of the WWW on society through research, interviews, and personal observation.

(4) Information acquisition. The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

(A) use local area networks (LANs) and wide area networks (WANs) including the Internet and intranet in research and resource sharing;

(B) construct appropriate search strategies in the acquisition of information from the Internet including keyword and Boolean search strategies; and

(C) obtain Uniform Resource Locators (URLs) and distinguish among the protocols including hypertext transfer protocol (http), gopher, file transfer protocol (ftp), telnet, and wide area information system (wais).

(5) Information acquisition. The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) acquire information in electronic formats including text, audio, video, and graphics, citing the source; and

(B) identify, create, and use available file formats including text, image, video (analog and digital), and audio files.

(6) Information acquisition. The student evaluates the acquired electronic information. The student is expected to:

(A) determine and employ methods to evaluate the design (for content delivery) and functionality (for navigation and interaction) of WWW pages and compare the method with other established methods;

(B) demonstrate skill in testing the accuracy of information; and

(C) investigate and choose electronic security methods for a web server to protect from unauthorized access and negative intentions.

(7) Solving problems. The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) use technology tools to create a knowledge base with a broad perspective;

(B) select and integrate appropriate productivity tools including, but not limited to, word processor, database, spreadsheet, telecommunication, draw, paint, and utility programs into the creation of WWW documents;

(C) use foundation and enrichment curricular content in the creation of WWW pages;

(D) create WWW pages using specific authoring tools such as text-based editing programs or graphical-based editing programs;

(E) read, use, and develop technical documentation;

(F) create and edit WWW documents using established design principles including consistency, repetition, alignment, proximity, ratio of text to white space, image file size, color use, font size, type, and style;

(G) demonstrate the ability to control access to the WWW site via password controls and global access/deny controls; and

(H) establish a folder/directory hierarchy for storage of a web page and its related or linked files.

(8) Solving problems. The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

(A) demonstrate proficiency in, appropriate use of, and navigation of LANs, WANs, the Internet, and intranet for research and for sharing of resources;

(B) extend teaching and learning in the local environment to the worldwide community through the creation and sharing of WWW documents;

(C) synthesize and generate new information from data gathered from electronic and telecommunications resources;

(D) create and format WWW documents containing bookmarks of on-line resources and share them electronically;

(E) demonstrate the use of WWW pages, collaborative software, and productivity tools to create products;

(F) participate with electronic communities as a learner, initiator, contributor, and teacher/mentor; and

(G) participate in relevant, meaningful activities in the larger community and society to create electronic projects.

(9) Solving problems. The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

(A) design and implement procedures to track trends, set timelines, and review/evaluate progress for continual improvement in process and product;

(B) seek and respond to advice from peers and professionals in delineating technological tasks;

(C) create technology specifications for tasks and evaluation rubrics; and

(D) resolve information conflicts and validate information through accessing, researching, and comparing data.

(10) Communication. The student formats digital information for appropriate and effective communication. The student is expected to:

(A) use hypertext linking appropriately when creating WWW pages;

(B) develop interactivity for the web server via scripting additions such as Common Gateway Interface (CGI), Java Script, or JAVA; and

(C) demonstrate the ability to conduct secure transactions from the web server to the client.

(11) Communication. The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

(A) synthesize and publish information in a variety of ways including, but not limited to, printed copy, monitor display, Internet documents, and video; and

(B) identify and use LANs, WANs, and remote resources to exchange and publish information.

(12) Communication. The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

(A) create technology specifications for tasks and evaluation rubrics; and

(B) seek and respond to input from peers and professionals in evaluating the product.

§126.29. Independent Study in Technology Applications (One Credit).

(a) General requirements. The prerequisite for this course is completion of a high school technology applications course as identified in this subchapter and permission of the instructor/mentor

for Independent Study in Technology Applications. This course may be taken at Grades 10-12.

(b) Introduction.

(1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

(2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(c) Knowledge and skills.

(1) Foundations. The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

(A) demonstrate knowledge and appropriate use of operating systems, software applications, and communication and networking components;

(B) make decisions regarding the selection, acquisition, and use of software taking under consideration its quality, appropriateness, effectiveness, and efficiency;

(C) delineate and make necessary adjustments regarding compatibility issues including, but not limited to, digital file formats and cross platform connectivity; and

(D) use appropriate technology terminology in the independent study course.

(2) Foundations. The student uses data input skills appropriate to the task. The student is expected to:

(A) demonstrate proficiency in the use of a variety of electronic input devices including the mouse, keyboard, scanner, voice/sound recorder, disk/disc, video, and digital camera as appropriate; and

(B) use digital keyboarding standards for data input such as one space after punctuation, the use of em/en dashes, and smart quotation marks.

(3) Foundations. The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) discuss copyright laws/issues and model ethical acquisition and use of digital information, citing sources using established methods;

(B) demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and intranet; and

(C) model respect of intellectual property when manipulating, morphing, or editing graphics, video, text, and sound.

(4) Information acquisition. The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

(A) use local area networks (LANs) and wide area networks (WANs), including the Internet and intranet, in research and resource sharing;

(B) apply appropriate search strategies in the acquisition of information from the Internet including keyword and Boolean search strategies; and

(C) pose hypotheses/questions related to a selected problem.

(5) Information acquisition. The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) acquire information using appropriate research strategies and a variety of electronic formats, including text, audio, video, and graphics, citing the source; and

(B) identify, create, and use available file formats including text, image, video (analog and digital), and audio files.

(6) Information acquisition. The student evaluates the acquired electronic information. The student is expected to:

(A) identify and employ a method to evaluate the design, functionality, and accuracy of the accessed information; and

(B) analyze information for validity and relevance in the confirmation, testing, and solution of the hypotheses and questions.

(7) Solving problems. The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) develop and apply advanced technology applications skills;

(B) identify and solve problems, individually and with input from peers and professionals, utilizing research methods and advanced technology applications skills used in a selected profession or discipline;

(C) select and integrate appropriate productivity tools including, but not limited to, word processor, database, spreadsheet, telecommunication, draw, paint, and utility programs into the creation of products;

(D) use foundation and enrichment curricular content in the creation of products;

(E) synthesize and generate new information from data gathered from electronic and telecommunications resources; and

(F) read and use technical documentation.

(8) Solving problems. The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

(A) work with a mentor to determine problem to be solved, hypotheses, and strategies to accomplish task;

(B) develop products that meet standards identified by the selected profession or discipline;

(C) produce original work to solve the identified

amount of credit to be awarded for successful completion of a course.

Several individuals who testified at the public hearing held on March 4, 1997, stated that the Texas essential knowledge and skills (TEKS) for career and technology education contain references to the skills and competencies identified by the Secretary's Commission on Achieving Necessary Skills (SCANS) and thus reflect federal influence. TEA staff has carefully reviewed the TEKS for evidence of SCANS skills and competencies. The sections being adopted do not contain specific references to SCANS; however, the sections do contain skills and competencies that are among those recommended by the commission. The curriculum writing teams, members of the State Board of Education Review Committee, and others had suggested strengthening the TEKS drafts expressed a strong belief that some skills and competencies identified by the SCANS commission are an essential part of an effective curriculum.

The following comments have been received regarding adoption of the new sections. The comments are organized by subchapter and section.

Subchapter A. Middle School.

§127.2. Career Investigation.

Issue: completion of formal career interest and aptitude assessment - §127.2(c)(1)(A) and (B).

Comment. An individual commented in objection to the use of an assessment test and career information which will decide where students interests and aptitudes lie or the career opportunities that are available as a result of the assessments. Career choices should come from within the student and not as a result of parental dictation or an educator push.

Agency Response. The TEA agrees with the comment. The career interest and aptitude data and information should be used by the parents and their child to assist in identifying the child's individual interest and talents in preparation to make meaningful and informed career choices throughout the life span.

Issue: course additions.

Comment. Clear Creek Independent School District (ISD) commented that additional information and activities be included at Grades 5 and 6 and that career days be conducted during the last month of school in Grades 5 and 6.

Agency Response. School districts may include career day activities in their educational program at their own discretion to meet the needs of the school district and students.

Subchapter B. High School.

§127.12. Career Connections.

Issue: course additions.

Comment. Clear Creek ISD commented that additional information and activities be included and resume writing and interviewing skills be introduced in Grades 9-12.

Agency Response. Resume writing and the interviewing process are included in both courses.

Subchapter A. Middle School

19 TAC §127.1, §127.2

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§127.1. Implementation of Texas Essential Knowledge and Skills for Career Orientation, Middle School.

The provisions of this subchapter shall supersede §75.50(e) of this title (relating to Career Investigation) beginning September 1, 1998.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 15, 1997.

TRD-9706479

Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

Effective date: September 1, 1998

Proposal publication date: February 28, 1997

For further information, please call: (512) 463-9701



Subchapter B. High School

19 TAC §127.11, §127.12

The new sections are adopted under the Texas Education Code, §28.002, which directs the State Board of Education to adopt rules identifying the essential knowledge and skills of each subject of the enrichment curriculum.

§127.11. Implementation of Texas Essential Knowledge and Skills for Career Orientation, High School.

The provisions of this subchapter shall be effective September 1, 1998.

§127.12. Career Connections (One-Half Credit).

(a) General requirements. This course is recommended for students in Grades 9-10.

(b) Introduction. Achieving proficiency in decision making and problem solving is an essential skill for career planning and lifelong learning. Students use self-knowledge, educational, and career information to set and achieve realistic career and educational goals.

(c) Knowledge and skills.

(1) The student analyzes the effect of personal interest and aptitudes upon educational and career planning. The student is expected to:

(A) complete a formal career interest and aptitude assessment;

(B) match interests and aptitudes to career opportunities; and

(C) begin a personal career portfolio by conducting an in-depth study of the varied aspects of occupations related to the student's interest areas.

(2) The student knows how to locate, analyze, and apply career information. The student is expected to:

(A) access career information using print and on-line resources to complete an educational and/or training plan for a career pathway;

(B) access career information using interviews with business and industry representatives to create a career resource file;

(C) complete career critiques gained through a variety of experiences (for example, shadowing, career study tours, guest speakers, career fairs, videos, CD-ROM, Internet, and simulated work activities); and

(D) use career information to apply entrepreneurial skills by developing a small business plan.

(3) The student knows that many skills are common to a variety of careers and that these skills can be transferred from one career opportunity to another. The student is expected to:

(A) compile a list of transferable skills with a corresponding list of possible career options matching the student's interests and aptitudes to be placed in the personal career portfolio; and

(B) create a presentation portraying transferable skills within the student's interest area.

(4) The student knows the process used to locate and secure employment. The student is expected to:

(A) prepare a Venn diagram comparing and contrasting employment opportunities of our free enterprise system and the economic systems of the international job market;

(B) develop a chart classifying employment opportunities based on educational and training requirements of careers in the student's interest area;

(C) complete a job application form for an employment opportunity in the student's interest area;

(D) develop a resume for an employment opportunity in the student's interest area; and

(E) role-play appropriate interviewing techniques for an employment opportunity in the student's interest area.

(5) The student recognizes the impact of career choice on personal lifestyle. The student is expected to:

(A) prepare a personal budget reflecting lifestyle desires;

(B) use print or on-line information to determine salaries of at least three career choices in the student's interest area with varying education requirements (for example, no high school diploma, high school diploma, and postsecondary training); and

(C) select the career most closely matching the student's personal lifestyle budget.

(6) The student knows the process of career planning. The student is expected to:

(A) list and explain the steps in the decision-making process;

(B) prepare an oral or written plan describing the specific factors considered in the decision-making process used to solve a simulated career problem;

(C) identify high school courses related to specific career choices in the student's interest area;

(D) select high school courses and experiences to develop a graduation plan that leads to a specific career choice in the student's interest area;

(E) list and explain educational and/or training alternatives after high school for a career choice within the student's interest area; and

(F) prepare an educational and career plan for an occupation within the student's interest area that begins with entry into high school and continues through a postsecondary educational and/or training program and place this information in the personal career portfolio.

(7) The student knows the importance of productive work habits and attitudes. The student is expected to:

(A) conduct interviews with a minimum of two employers to determine the importance of work ethics such as dependability, promptness, getting along with others, and honesty;

(B) list characteristics of an effective team member;

(C) work on a team to accomplish an assigned task and complete an "effective team member" profile to place in the personal career portfolio; and

(D) write job scenarios demonstrating positive and negative employee/customer relations.

(8) The student knows the effect change has on society and career opportunities. The student is expected to:

(A) cite examples of change in our society;

(B) compose a report explaining positive and negative aspects of one of the examples of societal change;

(C) develop a timeline covering the last ten years depicting the change in a selected career choice; and

(D) use labor market information, knowledge of technology, and societal and/or economic trends to forecast a job profile for a career in the student's interest area ten years from now and add this profile to the personal career portfolio.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 15, 1997.

TRD-9706480

Criss Cloudt

Associate Commissioner, Policy Planning and Research

Texas Education Agency

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For further information, please call: (512) 463-9701

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TITLE 22. EXAMINING BOARDS

Part XII. Board of Vocational Nurse Examiners

Chapter 235. Licensing

Issuance of Licenses

22 TAC §235.42

The Board of Vocational Nurse Examiners adopts an amendment to §235.42, relative to copying of licenses without changes to the proposed text published in the April 18, 1997, issue of the *Texas Register* (22 TexReg 3567)

This rule is amended to delete the restriction of copying licenses.

No comments were received regarding adoption of the amendment.

The amendment is proposed under Texas Civil Statutes, Article 4528c, §5(f), which provide the Board of Vocational Nurse Examiners with the authority to make such rules and regulations as may be necessary to carry in effect the purposes of the law.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 19, 1997.

TRD-9706631

Marjorie A. Bronk

Executive Director

Board of Vocational Nurse Examiners

Effective date: June 6, 1997

Proposal publication date: April 18, 1997

For further information, please call: (512) 305-8100



Chapter 239. Contested Case Procedure

Enforcement

22 TAC §239.19

The Board of Vocational Nurse Examiners adopts an amendment to §239.19, relative to Schedule of Fines in disciplinary matters without changes to the proposed text published in the April 18, 1997, issue of the *Texas Register* (22 TexReg 3568).

This rule is amended to increase the monetary fines that can be charged in disciplinary matters. The fees are being increased to make individuals more conscious of the importance of meeting the continuing education mandates and keep their license current when working.

No comments were received regarding adoption of the amendment.

The amendment is adopted under Texas Civil Statutes, Article 4528c, §5(f), which provide the Board of Vocational Nurse Examiners with the authority to make such rules and regulations as may be necessary to carry in effect the purposes of the law.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 19, 1997.

TRD-9706632

Marjorie A. Bronk

Executive Director

Board of Vocational Nurse Examiners

Effective date: June 6, 1997

Proposal publication date: April 18, 1997

For further information, please call: (512) 305-8100



TITLE 25. HEALTH SERVICES

Part II. Texas Department of Mental Health and Mental Retardation

Chapter 401. System Administration

Subchapter L. In-Home and Family Support Program

25 TAC §§401.681-401.692

The Texas Department of Mental Health and Mental Retardation (TDMHMR) adopts the repeal of §§401.681-401.692, concerning TDMHMR In-Home and Family Support Program, without changes to the proposed text as published in the March 11, 1997, issue of the *Texas Register* (22 TexReg 2569). New §§401.681-401.693, concerning the same, are contemporaneously adopted in this issue of the *Texas Register*.

The repeal allows for the adoption of new sections.

No public comment was received on the proposal.

The repeals are adopted under the Texas Health and Safety Code, Title 7, §532.015, which provides the Texas Board of Mental Health and Mental Retardation with rulemaking powers.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 19, 1997.

TRD-9706619

Ann Utley

Chairman, Texas MHMR Board

Texas Department of Mental Health and Mental Retardation

Effective date: September 1, 1997

Proposal publication date: March 11, 1997

For further information, please call: (512) 206-4516



25 TAC §§401.681-401.693

The Texas Department of Mental Health and Mental Retardation (TDMHMR) adopts new §§401.681-401.693, concerning TDMHMR In-Home and Family Support Program. Sections 401.683-401.693 are adopted with changes to the proposed text

as published in the March 11, 1997, issue of the *Texas Register* (22 TexReg 2570). Sections 401.681 and 401.682 are adopted without changes to the proposed text. The repeal of existing §§401.681-401.692, concerning the same, is contemporaneously adopted in this issue of the *Texas Register*.

The definitions of "emergency" and "TDMHMR In-Home and Family Support Program" have been modified for clarification. Language was added to the definition of "TDMHMR In-Home and Family Support Program" and throughout the rule to clarify that assistance must directly support the person to live in his/her natural home, rather than living in a more restrictive setting at a higher cost. In §401.684(a), specialized child care costs in excess of the prevailing rate for routine child care were added as an allowable service. In §401.684(b), language was clarified to state that the listed services were unallowable as well as those services that do not relate to the person's mental disability and do not directly support the person to live in his/her natural home. Additionally in §401.684(b), the term "routine" was added to several services to distinguish them as services needed by all persons in the general public; language was modified in (b)(11) to state that all over-the-counter medications are unallowable, regardless of their relationship to the person's mental disability; language was modified in (b)(13) clarifying that items or activities that are primarily for the *person's* recreation are unallowable; and language was modified in (b)(17) to clarify that computers are unallowable unless used as an assistive technology device and necessary to perform a critical or essential function such as environmental control, or written or oral communication, which the person is unable to perform without the use of the computer.

Section 401.685 has been reorganized and revised for clarification. Changes to diagnostic eligibility include a diagnosis of mental retardation within the previous three years for minors and within the previous five years for adults, rather than within the previous 12 months for all persons with mental retardation. Language was modified to clarify that a diagnosis or assessment from private practitioner/service provider who is licensed or certified in a relevant profession is permitted. A portion of proposed §401.685(a)(1)(B)(iii) has become new §401.685(1)(C), stating that eligibility may be granted on a temporary basis for up to 60 days (rather than 90 days) and that documentation substantiating the diagnostic basis of eligibility is required within 30 days (rather than 90 days) of disbursement for assistance in an emergency. Paragraph (2) was revised and expanded to include language from proposed subsection (a)(4)(A)-(C). References to programs for which participation renders a person ineligible for program assistance has been revised and clarified. Income eligibility has been changed to financial eligibility and includes child support, court settlements, trusts, and other sources of income. The financial eligibility paragraph (3) has been expanded to include language from proposed subsection (a)(4)(G). Paragraph (4) has been revised and expanded and describes the process for identifying the allowable services for which a person is eligible. The process includes a discussion of the person's needs and goals or desired outcomes and how the allowable services could meet the needs or achieve the goals or desired outcomes, as well as a review of the results of the person's current evaluations, program plans, and medical reports. Paragraph (4) also includes revised language that was proposed as subsection (b).

Language was added to §401.686(a) directing persons to notify the administering agency within 10 calendar days of a change in their eligibility factors; requiring persons on the waiting list to be contacted annually to determine if there has been a change in their eligibility factors; and, if there has been a change in the person's eligibility factors, requiring the administering agency to redetermine the person's eligibility within 30 calendar days. Language was added to subsection (b) stating that the person is provided a copy of his/her approved written plan; that the written plan includes a description of each need that requires an allowable service, how each service specifically relates to the person's mental disability, how each service will directly support the person to live in his/her natural home, and how each service will *positively* impact the mental disability; that the written plan includes a statement that the person agrees to comply with the written plan and that the person understands that noncompliance may result in the person being ineligible and liable for restitution; and that the written plan includes a statement that the person understands that it is a felony of the third degree to knowingly make or cause to be made a false statement or representation or to solicit or accept assistance for which the person knows he/she is not eligible. Language was added to subsection (c) requiring persons to notify the administering agency within 10 calendar days (rather than immediately) of a change in their eligibility factors. The subsection also directs the administering agency to redetermine a person's eligibility within 30 calendar days if the person reports a change in eligibility factors.

A new subsection (d) in §401.686, which replaced proposed subsections (d), (e), and (f), describes the reevaluation process that occurs within 30 calendar days following completion of assistance or at the end of the fiscal year, whichever comes first, and determines whether the goals/outcomes as stated in the written plan have been achieved. If the goals/outcomes have not been achieved or the person identifies an additional need, which can be met with an allowable service, then assistance may continue if funds are available. Additionally, the person's eligibility is redetermined if assistance will continue from one fiscal year to the next. Language was modified in §401.686(g)(2)(C) stating that architectural modifications become the property of the person or property owner, as appropriate. Language in §401.686(g)(2)(D), regarding architectural modifications becoming the property of the owner, has been deleted. Throughout the subchapter the term "supplies," when associated with architectural modifications and the lease and purchase of special equipment, has been deleted. The subsection describing emergency assistance has been expanded to include the provisions of new §401.685(1)(C). Language has been added to §401.687(d) to clarify that the penalty applies to persons who *knowingly* do not comply with their written plan. Examples of noncompliance have also been added. Clarifying language has been added to §401.687(b) and (f). A new subsection (g) in §401.687 was created to include revised language from proposed §401.685(a)(4)(F) that describes coordination with the Texas Department of Human Services.

Language has been modified in §401.688 which requires the appeal procedures described in Exhibit A to be communicated either verbally or in writing in the person's primary language. Language was also added to paragraph (2) of the same section clarifying that the person must request an administrative review

within 10 working days of receipt of notification of the first appeal decision. Language was modified in §401.688(4)(A) requiring the final decision of the administrative review to be communicated to the person in writing only (rather than communicated verbally as well). Language in §401.689(a) has been modified to clarify that department rules, standards, and other applicable guidelines may be used to document service standards and provider qualifications. Language has been added to §401.690(2) clarifying that the number of persons who are currently waiting for assistance be identified by the year placed on record as waiting. Language in §401.691 was modified to be consistent with the title of the exhibit. The word "and" was deleted from §401.692(4). The title of the Texas MHMR Board was corrected in §401.693(1).

A public hearing was held on April 1, 1997. Testimony was received from the Texas Respite Resource Network; Mental Health Association of Texas, Austin; P.R.I.D.E. Early Childhood Intervention Program; Austin-Travis County MHMR, Austin; and Center of Health Care Services, San Antonio. Written public comment was received from Texas Panhandle Mental Health Authority, Amarillo; The Gulf Coast Center, League City; The Arc of Greater Houston, Houston; Lubbock Regional MHMR Center, Lubbock; Riceland Regional Mental Health Authority, Wharton; Tarrant County MHMR Services, Fort Worth; Austin-Travis County MHMR, Austin; Andrews Center, Athens; West Texas Centers for MHMR, Big Spring; ACCESS, Jacksonville; MHMRA of Brazos Valley, Bryan; Texas Planning Council for Developmental Disabilities, Austin; Denton County MHMR Center, Denton; Heart of Texas Region MHMR Center, Waco; The Arc of Texas, Austin; Public Responsibility Committee, MHMRA of Harris County, Houston; MHMRA of Harris County Advisory Board, Houston; Parent Association for the Retarded of Texas, Austin; two recipients of assistance through TDMHMR In-Home and Family Support Program; and the parent of a state school resident.

Regarding §401.684(b)(11), four commenters objected to prescription medications that do not relate to the person's mental disability being listed as an unallowable service. Several commenters described how, without the prescribed medication, a person's physical deterioration may lead to a reduction in mental functioning. Another commenter requested that over-the-counter and prescription medication be related to the person's disability rather than the person's *mental* disability. One commenter, assuming that seizure medication would be considered related to the person's mental disability, requested language confirming that assumption. The department responds that the Texas Health and Safety Code, §535.004(a)(2) allows for "other health services related to the person's mental disability." Since medication is a health service, it too must be related to the person's mental disability. The department notes that prescription medication is an allowable service *only* if the prescribing physician indicates that the medication is related to the person's mental disability. Language has been modified to state that over-the-counter medications remain an unallowable service regardless of whether they relate to the person's mental disability.

Regarding §401.685(a)(1), one commenter requested clarification of the relationship between "medication" and "relating to the person's mental disability." The department responds that

the determination of whether a medication relates to the person's mental disability will be the responsibility of the prescribing physician. The department notes that program funds may not be used for psychoactive or psychotropic medication prescribed for persons in the priority population. The administering agency (local authority) is responsible for providing such medication and charging the person a maximum monthly fee in accordance with department rules governing charges for community-based services (Chapter 403, Subchapter B).

Regarding §401.684(a)(1), one commenter requested guidelines to determine significant relatedness of a medical need to the person's mental disability or the latitude to approve funds for certain types of medical expense. The department responds that the determination of whether the medical need is related to the person's mental disability is made by the physician prescribing the medical service.

Regarding §401.684(b)(9), four commenters requested clarification of the term "normal" or "routine" when referencing shelter, utilities, home repairs, and furnishings. One commenter requested examples of non-normal and non-routine. Another commenter asked if rent and utilities is determined to be non-routine, then how often and for how long can the assistance be provided. Another commenter stated that if it is the intent to assist persons in remaining in the community, then would it not be prudent to allow the purchase of household items (e.g., stove, refrigerator, microwave oven)? The department replaces the term "normal" with "routine" for consistency and defines it as ordinary items or services needed by people, with or without a disability, in the general public who live independently. The TDMHMR In-Home and Family Support Program (IHFSP) provides assistance for items and services that, because of the person's mental disability, are not routine. An example of non-routine shelter, utilities, and home furnishings would be when a person transitions from a residential facility to independent living in the community. Routine shelter is not a rent subsidy, or rent that is on-going, continuous, repetitive, or provided year after year. Regarding how often and for how long assistance may be provided, the department responds that some persons may need non-routine rent and utilities periodically, based upon their need which is determined according to §401.685(4).

One of the commenters stated that although the IHFSP is not intended to improve the living conditions of persons living at or below the poverty level, often persons with a mental disability are living at or below the poverty level *because* of their mental disability. The commenter added that the need for shelter is very much related to a person's mental disability and whether the person is at risk for out-of-home placement. The commenter listed several extenuating circumstances that may lead to risk for out-of-home placement, such as loss of employment, waiting for SSDI or SSI benefits, and transition from an institution or residential placement. The commenter suggested including the person's treatment team, if appropriate, in any decision regarding approval of IHFSP assistance for shelter when there are extenuating circumstances that put the person at risk for out-of-home placement. The department responds that staff are responsible for ensuring that eligible persons in need of shelter are first referred to community housing resources as well as the administering agency's supported housing program (a Best Practice) because program funds may

not be used to supplant services available through local, state, or federal programs, including programs of the administering agency. Regarding inclusion of the person's treatment team in discussions concerning assistance, the department responds that it supports the treatment team's input provided decisions are directed by the person and not the treatment team.

Regarding §401.684(b)(16), three commenters expressed confusion concerning the intent of not allowing "child care for children under the age of 14." One commenter stated that his organization served numerous children with serious mental illness for which specialized child care may be indicated. Another commenter stated that appropriate child care could certainly be a factor in whether or not a family seeks out-of-home placement. One commenter asked how this service differs from respite. One commenter acknowledged that, while child care is an expense that every parent of minor children is responsible for, it would be appropriate to fund the disability-related cost of the care. Two commenters requested that the age limit be 12 rather than 14. The department responds by adding the term "routine" to distinguish it as child care services needed by all working parents in the general public. The department also adds clarifying language to §401.684(a), stating that specialized child care costs *in excess of the prevailing rate* are allowable. Regarding the difference between child care and respite, the department responds that respite is considered short-term, periodic relief of the primary care giver, while routine child care is considered to be care provided on a regular basis, such as daily or weekly. Regarding modifying the age limit from 14 to 12, the department responds that the age limit has been deleted.

Another commenter suggested allowing assistance for short term care for children over the age of 11 or 12 years because many children are capable of short term self-supervision by age 11 years. The department responds that short term care is considered respite.

Regarding annual reevaluations, one commenter expressed concern that an annual reevaluation of every recipient prior to the beginning of a new fiscal year is extremely time consuming, especially when a recipient's need may have been met as much as 11 months earlier. The commenter suggested reevaluating the person when the person's need has been met and his/her goal or outcome identified in the written plan has been achieved or at the end of the fiscal year, whichever comes first. The department concurs and language has been modified to reflect the commenter's suggestion.

Regarding §401.685(a)(1)(A), five commenters objected to the annual eligibility requirement of a diagnosis of mental retardation within the previous 12 months. One commenter stated that the repetitive testing would be extremely costly, while accomplishing little because persons with mental retardation do not change significantly from year to year, especially once they have reached adulthood. Another commenter stated that even the education system at the federal level is considering waiving the 3-year reevaluation cycle requirement in certain circumstances. A commenter suggested including documentation alternatives other than diagnosis. The department responds by requiring a diagnosis of mental retardation within the previous three years for minors and within the previous five years for adults. Regarding the inclusion of documentation alternatives

other than diagnosis, the department responds that the commenter's suggestion is unclear.

Regarding §401.685(a), one commenter expressed confusion concerning language in subsection (a)(1)(A)(i) which requires a diagnosis within the past 12 months to be eligible and language in subsection (a)(1)(B)(i) which states that past documentation of services from the department is sufficient to establish eligibility. The commenter asked if this requirement applied only to the initial application. The commenter also asked if the documentation to verify the disability had to be dated within the last 12 months even though there may be a determination of mental retardation (DMR) or comprehensive diagnosis and evaluation (CD&E) dated prior to the past 12 months. The department responds that the requirements in subparagraph (A) are *in addition to* the requirements in subparagraph (B), not instead of. The department directs the commenter to the language in paragraph (1)(B)(i) which states, "*A person meeting the criteria in subparagraph (A) of this section who previously received services from the [department] or [community center] is eligible. Additional evaluation or documentation of diagnosis is not required unless deemed necessary by intake staff.*" This means that *first* the person must have a diagnosis of a mental disability in accordance with subparagraph (A), *then*, if the person previously received services from the department or community center, the person is eligible *without additional evaluation or documentation of diagnosis unless deemed necessary*. Regarding the requirement applying only to the initial application, the department responds that to continue receiving assistance from one fiscal year to the next a person's eligibility must be re-determined annually using the same criteria. Regarding a DMR or CD&E (or any other documentation of a diagnosis of mental retardation by a private practitioner/service provider licensed or certified in a relevant profession) dated prior to the past 12 months, the department has modified the diagnostic eligibility language to require a diagnosis of mental retardation within the past three years for minors and within the past five years for adults.

Regarding §401.685(a)(4), one commenter expressed concern over the language "...shall consider the extent of the person's needs and whether the person is at risk for out-of-home placement." The commenter asked how "at risk for out-of-home placement" would be determined because there are families who are very much in need of services but would never consider placing their family member out of the home. The commenter stated that families should be eligible to receive assistance *before* a situation reaches a crisis level. Two other commenters expressed concern that families will be put in a position of identifying their family member as at risk for out-of-home placement or exaggerate a need in order to continuing receiving assistance. The commenter stated that crisis situations arise if persons are moved in and out of the program because of their changing needs. One commenter questioned the purpose of considering extent of the person's needs or risk of out-of-home placement, asking if it were to determine the existence of an emergency. The commenter stated that since the rule gives no guidance on how to weight or evaluate the extent of need or risk for out-of-home placement then the requirement may be misinterpreted or applied inconsistently. The commenter also stated that since the program processes requests on a first come, first served basis, then the language referencing

consideration of extent of need and at risk for out-of-home placement should be deleted. The department responds that the program was never intended to address *all* of a person's needs, just those that *directly support the person to live in his/her natural home, rather than living in a more restrictive setting at a higher cost*. If the needs that directly support the person to live in his/her natural home decrease, then assistance should decrease – and when the needs have been met, then the person should exit the program. Regarding the absence of guidance on how to weight or evaluate the extent of need or risk for out-of-home placement, the department responds that the language has been replaced with statutory direction (Texas Health and Safety Code, §535.003(c) and (d)), which directs staff to review the results of the person's current evaluations, program plans, and medical reports and consult with the person to identify the allowable services for which the person is eligible.

Regarding §401.686(a)(2), one commenter expressed concern over language which stated that requests are processed in chronological order when a report to the 75th Texas Legislature criticized the program for processing requests on a "first come, first served" basis rather than on an immediate needs basis. The department responds that its response to the report stated that the department agreed with the intent of the Legislative Budget Board's recommendation to consider the severity of need of an individual as compared to others, rather than being solely determined on a "first come, first serve" basis or on whether the individual is currently receiving assistance. The department's response continued to state, "The panel (In-Home and Family Support Program Review Panel) recognizes the necessity to provide equal opportunity to access for those waiting, including those with severe needs.' The panel has determined that similar outcomes can be achieved by making substantial revisions to the initial screening, reevaluation, and waiting list processes." The department notes that the revisions include the identification of allowable services (which are related to the mental disability and directly support the person to live in his/her natural home, rather than living in a more restrictive setting at a higher cost) during the initial screening; reevaluation within 30 days following completion of assistance or at the end of the fiscal year, whichever comes first, which determines if the goals/outcomes as stated in the written plan have been achieved; and the annual contact of persons on the waiting list to determine a change in eligibility factors.

Regarding §401.686(f), one commenter expressed concern that a person's name would be repeated on the waiting list for each new need the person identified. The commenter stated that when the person's name is at the top of the waiting list, then the person's written plan should reflect all of the needs the person identified while on the waiting list. Three commenters objected to the requirement being applied to current recipients, with one commenter stating that it will result in persons going back and forth between stable and crisis situations. The commenters also noted that the core principle in creating an individualized support program is to be flexible to the person's changing needs and circumstances. The department responds by modifying the reevaluation process which addresses the commenters' concerns. The department notes that the reevaluation process indicates whether the goals/outcomes as stated in the written plan have been achieved. If the goals/outcomes have not been achieved or the persons identifies an additional need,

which can be met with an allowable service, then assistance may continue if funds are available.

Regarding §401.684(b)(1), two commenters objected to vehicle maintenance being included as an unallowable service. The commenters stated how vehicle *repairs* is a legitimate need. One commenter asked if there will be a distinction between vehicle maintenance and vehicle repair. The department responds by adding the term "routine" and notes that routine vehicle maintenance is not considered vehicle repair.

Regarding §401.684(b)(5), four commenters objected to services in segregated settings being unallowable. Two of the commenters complained that the requirement would deny young persons with mental retardation access to a particular summer camp which provides safe recreation as well as competent care for their special needs. Two commenters requested clarification of "services in segregated settings." One commenter asked if it meant that a respite program would be unallowable unless it is integrated with non-disabled people. The commenter stated that non-disabled adults do not need respite services, therefore, it would be impossible to have an integrated respite program for adults with mental retardation. The commenter asked if public transit programs designed for persons with disabilities would be unallowable transportation because it serves only people with disabilities. Another commenter requested examples of non-segregated settings. The department responds that services in segregated settings are services provided only to persons with a *mental* disability. Day programs exist that provide supervision for adults with disabilities, not just mental disabilities. The department notes that services in segregated settings have always been unallowable and directs the commenters to a policy clarification memo sent to administering agencies and implemented on January 1, 1993, which states that segregated services such as sheltered workshops and psychosocial programs were not within the intent of the legislation. The memo provided other examples of segregated services, which included day activities programs, summer camps for people with disabilities, and "group activities" such as bowling, shopping, movies, in which participants have the same disabilities. The memo stated that special transit, group therapy, and in-home respite were not considered segregated services. One of the program's purposes is to integrate persons into community living by promoting self-sufficiency. Segregated respite programs do not accomplish this purpose. Non-segregated settings are those that the general public would use, for example, the YMCA or Girl/Boy Scouts. In-home respite is also a non-segregated setting. The department notes that families are free to participate in any service they believe to be beneficial; however, the department is responsible for identifying which services may be paid for with public funds.

Regarding §401.684(b)(8), two commenters objected to costs for allowable services incurred before the written plan is approved being included as an unallowable service. The commenters stated that their administering agency takes several months to develop a written plan, then several more months before it is approved, leaving just four or five months in the fiscal year to expend all the money. The commenters expressed concern that while the written plan is being developed and approved their needs are not being met. The department responds that state statute (Texas Health and Safety Code,

§535.004(a)) mandates assistance to compensate a client for *present and future* expenses incurred, and the department has determined that present and future expenses are those incurred after the person's written plan is approved.

Regarding §401.684(b)(13), four commenters objected to items or services that are primarily for recreational purposes being unallowable. One commenter stated that families use recreational services as respite, and that recreational services provide meaningful and enjoyable activities, which have an impact in preventing loneliness, depression, and maladaptive behaviors. Another commenter requested clarification regarding when assistance could pay for a recreational program that is used as respite. One other commenter asked how this would impact persons who are not able to access the community. The department responds that language has been modified to clarify that the item or activity may not be primarily for the *person's* recreation. The department understands that respite care or training programs may sometimes include recreational activities; therefore, if the person's primary purpose is to receive appropriate social training and prevent depression (or the family's purpose is respite) and the recreational activity is not in a segregated setting, then it may be allowable. Regarding the impact of persons unable to access the community, the department responds that *access* to the community does not involve an expense. The department suggests the commenter contact local civic organizations or the community relations department of the administering agency to help provide access to recreation in the community.

Regarding §401.684(b)(18), four commenters objected to services provided by an individual under the age of 18 being included as an unallowable service. One commenter stated that at some summer day camps for persons with mental retardation teenagers receive extensive training and experience taking care of child with a disability, and many families hire these minors to provide respite services. The commenter stated that this proposal seems to needlessly eliminate some desirable options for persons and families and take away consumer choice that the department has been espousing recently. Two other commenters suggested adding language stating "except at the specific discretion of the family." The department responds that consumer choice must be balanced with prudent public policy and as a matter of prudent public policy the department does not authorize minors, regardless of training, ability, judgment, or capacity, to engage in the care of others paid for with public funds. The department notes that families are not prohibited from hiring minors to provide respite services, the rule merely states that public funds may not be used to pay for those services.

Regarding §401.684(a)(3), one commenter expressed concern that "chore services" were linked with training. The commenter stated that some families need chore services but not training. The department responds that chore services may be linked with training or any of the other activities stated, which are routine body functions, dressing, preparation and consumption of food, and ambulation.

Regarding §401.685(a)(4)(C), one commenter requested a definition of "establishment." The commenter asked if a person is eligible for assistance if he/she is living in an establishment that is transitional in nature and not considered permanent

residency. Another commenter objected to the ineligibility of people who live in board and care homes or personal care homes. The commenter stated that such establishments are not the equivalent of an ICF/MR. One commenter asked if a person was eligible if he/she was admitted to a short term crisis stabilization program and needed services that went beyond room and board, general supervision, and psychiatric services. The department responds that the term "establishment" refers to entities such as personal care homes and board and care homes. Persons living in these types of establishments or persons in short term crisis stabilization programs are not considered to be living independently, as required by state statute, and are not eligible for program assistance.

Regarding §401.685(a)(1)(A)(ii), one commenter suggested minor modification to the language for readability. The department agrees and adds the suggested language.

Regarding the definition of "emergency," one commenter stated that the determination of what constitutes a "life-threatening situation" is beyond the scope of program staff. The commenter suggested either deleting the life-threatening situation language from the definition or specifying the allowable services that relate to the person's physical disabilities in addition to those that relate to the person's mental disability. The department responds that language has been added clarifying that the life-threatening situation be related to the person's mental disability, of which such determination is within the scope of program staff with supporting documentation.

Regarding the definitions of "family" and "natural home," one commenter objected to the definitions because they allow for the eligibility of households that have acquired multiple children with disabilities through legal adoption. The commenter stated that such households are more closely related to group homes and congregate care facilities. The commenter suggested modifying the definitions to include no more than three *non-biologically* related children. Another commenter suggested deleting the language regarding unrelated individuals because the commenter believed that unrelated individuals living in the same house do not constitute a family. The department responds that it does not discriminate against unconventional families or families with adopted children. The department notes that the definition of "family" is consistent with state statute (Texas Health and Safety Code, §535.001(3)).

Regarding the definition of "TDMHMR In-Home and Family Support Program," one commenter suggested changing the phrase "...above and beyond the scope of usual support..." to "...above and beyond the scope of usual *needs*..." because the term "support" is used throughout program literature to describe what *is* provided. The department responds by modifying the language to state "...above and beyond the scope of usual needs..."

Regarding §401.685(a)(8), one commenter requested that the phrase "general living conditions" be deleted. The commenter stated that assistance to improve the general living conditions directly contradicts the definition of the program. The department responds that the phrase comes directly from state statute (Texas Health and Safety Code, §535.004(a)(1)). The department notes that the phrase "as related specifically to the per-

son's mental disability" was included in the 1991 rule revision for clarification.

Regarding §401.684(b)(17), two commenters suggested clarification for computer purchases. Two commenters suggested further defining "functional capabilities" as speech or environmental control (e.g., lighting, appliances, temperature). One commenter suggested listing computers as assistive technology devices under allowable services so as not to unintentionally restrict access to a needed service. The department responds that clarifying language has been added. Regarding listing the item under allowable services, the department responds that by listing computers, with the exception of assistive technology devices, under unallowable services clearly articulates the department's position that, while computers are desirable items, they do not directly support the person to live in his/her natural home.

Another commenter asked whether all computers purchased with program funds would have to be equipped with adaptive equipment in order to be considered able to improve a person's functional capabilities. The commenter stated that many times specialized software is all that is needed to fulfill functional capabilities, such as with a child with autism. The department responds that if specialized software is all that is needed because the person already has a computer, then it may be allowable. The department notes that §401.684(b)(17) only addresses the limitations concerning *computer* purchases.

Regarding §401.685(a)(3)(D), one commenter objected to the flat copayment of \$1 for persons below 105% of the Texas median income level. The commenter stated that it should be a percentage of the service cost for consistency and asked if the \$1 was per month, per year, or per purchase. The commenter also stated that staff and families view the trivial amount as gratuitous and thereby insulting. Two commenters stated that collection of the \$1 could be problematic and may cause delays in the person receiving services. Another commenter agreed with the \$1 minimum copayment. The department responds that program recommendations from the In-Home and Family Support Program Review Panel included language stating that every recipient should be responsible for at least a minimum copayment. The \$1 minimum copayment would be processed in the same manner as percentage copayments, which is per service. Section 401.686(i)(1)(C) and (i)(2)(C) state that the copayment is deducted from the amount of assistance; therefore, it is not actually *collected* from the person.

Regarding §401.687(d), one commenter asked what degree of non-compliance results in termination of assistance since there are many components of the written plan, each with varying degrees of possible non-compliance. The commenter provided examples of non-compliance which would result in termination of assistance. Two commenters stated that a person's mental illness or mental retardation may cause noncompliance with his/her written plan. The commenters suggested that the administering agency be understanding of this and help persons with their compliance. Another commenter supported the language as stated. The department responds by modifying the language to state that persons who *knowingly* do not comply with their written plan are no longer eligible for assistance and may be liable for restitution. The department has also added the commenter's examples of noncompliance. The department

notes that all administering agencies understand compliance limitations caused by a mental disability and make allowances as appropriate.

Regarding §401.688, one commenter objected to the requirement that the administering agency be responsible for communicating to the person, verbally and in writing in the person's primary language the appeal information. The commenter stated that it is not always possible to translate the information into Spanish, or all of the Asian derivative languages and requiring staff to effectively communicate in any foreign language is unrealistic. The commenter suggested requiring the administering agency to *make every effort to clearly communicate* to the person, in his/her primary language, the appeal information. The department responds by modifying the language to require the information to be communicated *either* verbally or in writing in the person's primary language. The department notes that if staff can effectively communicate denial of services to a person, then staff is capable of effectively communicating the appeal process. Comprehension of the program's policy including the appeal process available to persons and families is critical to effective implementation the program.

Regarding the definition of "developmental delay," one commenter suggested further defining "significant variation in normal development" as a delay of two years to minimize inequity in eligibility determination across the state. One commenter objected to the requirement of having a significant variation in normal development in *two* or more areas. The commenter, stating that one area is sufficient, gave examples of how children in the Early Childhood Intervention (ECI) Program with specific diagnoses required assistance. The department responds that it believes further definition of the phrase is unnecessary. "Significant variation" means delays which require treatment or intervention from professional staff. Regarding the commenter's statement that significant variation in one area is sufficient, the department responds that ECI diagnostic eligibility criteria is broader than TDMHMR In-Home and Family Support Program diagnostic eligibility criteria. The department notes that the examples provided by the commenter did not indicate a "significant variation" in normal development in even one area. Some of the examples, as the commenter admitted, did not indicate the children or their families had a current need for assistance.

Regarding the definition of "parent," two commenters suggested replacing the terms "parent" and "guardian" with "legally authorized representative" because the term addresses parent of a minor, managing conservator, and guardian. The commenter stated that the rule did not need clarification of parent as natural, foster, surrogate, or adoptive. The department responds that the definition is consistent with state statute (Texas Health and Safety Code, §535.001(8)).

Regarding the definition of "mental disability," two commenters requested deleting the definition because the term was too generic and meant nothing. The department responds that because the term "mental disability" could be interpreted broadly it has narrowly defined the term for use in this subchapter.

Regarding the definition of "person," the same two commenters requested using the term "individual" instead. The commenter claimed to be confused because in most places where the

term "person" is used, it should really state "person or family." The department responds that instead of repeating the phrase "the person with a mental disability or the person's family" throughout the subchapter, the department chose to define the term "person" to mean either the person with a mental disability or the person's family, whichever is appropriate.

Regarding §401.684(b)(15), two commenters questioned if certain arm splints, used according to a behavior intervention plan to prevent self injurious behavior, would be an unallowable service. The department responds that all restrictive restraint devices, including arm splints, are unallowable services. The department notes that if a restrictive restraint device is identified for use in a person's behavior intervention plan, then it is the responsibility of the plan's developer to assist the person in gaining access to the appropriate device.

Regarding §401.686(a)(2), the same two commenters stated that, in addition to processing requests in chronological order, severity of need should also be considered. The department responds that severity of need is considered along with other factors, such as how services will directly support the person to live in his/her natural home, rather than living in a more restrictive setting at a higher cost, in determining the amount of assistance the person receives.

Regarding §401.686(b)(1)(E), two commenters stated that the goals or desired outcomes described in the written plan must have the person's needs and wants as the dominant factor. The commenter appreciated the acknowledgment that self-sufficiency may not always be possible. The department responds that the person is responsible for determining his/her goals or desired outcomes, the staff is responsible for ensuring that any goals or outcomes are reasonable, appropriate, related to the person's mental disability, attainable, and directly support the person to live in his/her natural home, rather than living in a more restrictive setting at a higher cost.

Regarding §401.686(d), two commenters stated that the written plan with its goals and desired outcomes should be updated continuously until assistance is no longer needed. The department responds that the reevaluation process indicates whether the goals/outcomes as stated in the written plan have been achieved. If the goals/outcomes have not been achieved or the person identifies an additional need, which can be met with an allowable service, then assistance may continue if funds are available.

Regarding §401.691, two commenters stated that Exhibit A should be attached to every rule and the term "applicant" should be replaced with "individual and/or legally authorized representative." The department responds that Exhibit A is attached to every copy of the subchapter that the department distributes. Regarding the term "applicant," the department believes that the term "applicant" is appropriate.

Regarding the term "TDMHMR," one commenter questioned if "TDMHMR" should be changed to "TXMHMR." The department responds that TDMHMR is the proper term for this subchapter.

Regarding the definition of "TDMHMR In-Home and Family Support Program," one commenter, who is a member of the program review panel, requested that specific language recommended by the panel in 1991 be used in the definition. The

department responds that the suggested language, "Program funds are used to purchase allowable services that would not be required if the person did not have a mental disability," has been added.

Regarding §401.686(b)(1), the same commenter requested that the written plan include a statement regarding a felony of the third degree as described in §401.687(e). The department responds by adding language to address the commenter's concern.

Regarding language in the definition of "TDMHMR In-Home and Family Support Program," one commenter requested clarification of when medical care is "within the scope of usual support" and when it is "above and beyond the scope of usual support." The department responds that medical care above and beyond the scope of usual support is that which is related to the person's mental disability as determined by the physician prescribing the medical care. Examples of medical care within the scope of usual support are inoculations, well checks, appendectomy, doctor visits and medication for an ear infection, and an emergency room visit to set a broken arm.

Regarding §401.685(b)(9), one commenter stated that the language implies that a home appliance could never relate to a person's mental disability. The commenter asked if it is the intent to always prohibit the purchase of home appliances. The department recognizes that the need for home appliances may relate to a person's mental disability in individual situations, therefore, the term has been modified to state "routine home appliances."

Regarding §401.685(a)(4)(F), one commenter asked how the department will meet the requirement for coordinating with the Texas Department of Human Services (TDHS) and how will it will communicate its finding to administering agencies. The commenter asked whether the administering agency had a responsibility in the coordination. The department responds that the subsection has been moved to §401.687 and language has been added clarifying that the department coordinates with TDHS on a quarterly basis and refers discrepancies to administering agencies for resolution. Language has also been added stating that each administering agency is responsible for the ongoing coordination with the TDHS office in its region to ensure that individuals receiving funds through the TDHS In-Home and Family Support Program are not receiving assistance from the TDMHMR In-Home and Family Support Program.

Regarding respite services as a "core service" provided to members of the priority population, one commenter stated that, since program funds could not be used for psychoactive or psychotropic medication to members of the priority population because it was a core service funded by the department, then wouldn't the same prohibition apply to respite services. The department responds that the commenter's statement is correct. Although program funds for respite services for members of the priority population (MH and MR, adult and children) may not *supplant* the core respite service required to be provided by the local authority (or administering agency), it may be used to *supplement* the core respite service. Before assistance is granted, the administering agency staff must document that respite services from other support programs (including itself) was not available.

Regarding the definition of "mental illness," one commenter asked if the terms "substantially impairs" and "grossly impairs" were to be interpreted by the administering agency. The department responds that the interpretation and determination of substantial and gross impairment is the responsibility of the diagnostic professional. The department adds that if the diagnostic professional is an administering agency staff member, then he/she would have the education and experience in providing mental health services as well as access to diagnostic and functional assessment tools, therefore, the department has the utmost confidence in his/her ability to interpret the phrase. Additionally, the department refers the commenter to §401.685(1)(B)(ii) which allows the administering agency staff to *require additional evaluation or documentation* when a person submits a current diagnosis or assessment from a private practitioner/service provider licensed or certified in a relevant profession.

Regarding approval of the written plan, one commenter asked if the staff member who develops the written plan with the person could also be the staff member who approves the plan. The department responds that the rule does not prohibit the same staff person from developing and approving the written plan, however, the department discourages this action. The department encourages the approval of written plans by a standing or ad hoc committee knowledgeable of the program's policies and procedures.

Regarding the vague definition of priority population, one commenter who is the chairman of a public responsibility committee, stated that the local authority attempted to define who was eligible, but its decision was overturned. The department responds that the commenter's concern is unclear and notes that this subchapter does not include a definition of "priority population" because the term is not used. Participation in the TDMHMR In-Home and Family Support Program is not limited to members of the priority population.

Regarding the creation of policy, the same commenter stated that rules and administrative procedures which are adopted at the county level are subject to review at the state level. The commenter stated that if the state wants the prerogative of making policy, then it should do so and not delegate this authority then undermine it. The department responds that rules governing the TDMHMR In-Home and Family Support Program are developed by the department at the state level for uniform implementation state wide. Local authorities are responsible for developing local policies and procedures for their organizations that are consistent with department rules.

Regarding the waiting list, the same commenter stated that it would be more equitable if the waiting list carried over from year to year rather than starting over with each year. The department agrees and directs the commenter to such requirement, which is stated in §401.686(a)(3)(A).

The same commenter stated that there should be further consideration given to the provision of time-limited services verses those which will be provided on a continuing basis. The department responds that the commenter's suggestion is unclear.

The same commenter stated that there is confusion and ambiguity over the specific nature of goods and services

that can be purchased with program funds. The department responds that it has stated as clearly as possible which services are allowable and unallowable while still providing the flexibility of meeting unique needs.

The same commenter stated that the manner in which supplemental funds were distributed at the local authority prompted confusion and discontent. The department responds that all program funds, supplemental or otherwise, are to be disbursed in accordance with this subchapter.

One commenter, on behalf of a council representing multiple advocacy organizations, stated, "We believe that many of the changes proposed in these rules are the result, not of some flaw in the program's design, but because, for the last several years, adequate training and technical assistance has not been available to field staff. ... [The proposed new sections] are not a substitute for training or thoughtful consideration of an individual's particular situation and in some cases are overly prescriptive. We urge the department to immediately implement the recommendations offered by the In-Home and Family Support [Review] Panel Training and Staff Recommendations (Section V) dated February 1997." The department responds that the proposed new sections contain the majority of the review panel's recommendations. Other administrative recommendations by the panel are currently under review. The department notes that state-wide training and training materials are offered each time the rule is amended.

Regarding the definition of "TDMHMR In-Home and Family Support Program," the same commenter requested that the portion of the proposed deleted language relating to "fostering independent choices" be restored. The commenter also stated that the definition should be defined in positive terms and not on its limitations and requested that the limitations portion of the definition be included with allowable and unallowable services. The department responds that the review panel recommended revised language for the program's mission statement, which stated that the program "creates opportunities for independent choices." The department notes that it developed rule language using text from the review panel's revised mission statement and basic program guidelines.

Regarding language that relates services to the person's *mental* disability, the same commenter stated that while the presence of a mental disability is a legitimate eligibility criteria for assistance, once eligibility is determined then services should be related to the person's disability so that there is no question that such services as architectural modifications and assistive technology are not limited or denied to eligible persons who also have physical disabilities. The department responds that it believes the language in §401.684(a)(8), which states "architectural modifications to the home and/or purchase or lease of special equipment or supplies that improve or facilitate the care, treatment, therapy, general living conditions as related specifically to the person's mental disability, or *access of the person*," and in §401.684(b)(17), which states, "computers, *unless for use as an assistive technology device and necessary to perform a critical or essential function such as environmental control, or written or oral communication, which the person is unable to perform without the use of the computer*," clearly addresses a person's physical disability. The department notes that use of the term "mental disability" throughout the rule is consistent with

the Texas Health and Safety Code, Chapter 535, which uses the term "mental disability" in all its references.

Regarding §401.685(b), the same commenter expressed concern that without a required time frame or deadline the possibility exists of persons waiting indefinitely while staff determine that the services are not available from other support programs. The department responds that a required time frame is included in §401.686(a), which states that a person's eligibility must be determined within 30 calendar days.

Regarding §401.686(i)(2)(D), the same commenter expressed concern over the requirement to have the property owner or manager approve architectural modifications to leased or rented property. The commenter stated that the requirement may be in conflict with the Fair Housing Act, which allows tenants to use their own funds to make modifications without consent of the property owner. The department responds that the Fair Housing Act does not apply to all property owners and addresses the relationship between some property owners and their tenants. The department's requirement for approval of architectural modifications is not in conflict with the Act.

Regarding food as an unallowable services in §401.684(b)(9), one commenter questioned if there will be allowances for specialized diets. The commenter provided an example in which a person with multiple health problems including diabetes and heart disease is ordered by his physician to eat a low fat and low cholesterol diet and the person's food doesn't permit for the cost of leaner cuts of meat and fresh foods. The commenter added that the person's treatment team notes that improvement in the person's physical health has a positive impact on his mental health. The department responds that many people in the general public have diabetes and heart disease and are directed by their physicians to eat a low fat and low cholesterol diet. And many of them have a limited food budget. This situation is not unique to persons with a mental disability. The department notes that it is the responsibility of the physician prescribing the special diet to ensure his/her patient with limited income receives the appropriate education and training to adhere to a specialized diet. Other resources exist to meet such needs of the person in the example, for instance, programs are available to persons receiving food stamps which educate them in planning a menu, selecting foods on a limited budget, and preparing a meal.

Regarding §401.686(i)(2), one commenter asked if the intent is to limit architectural modifications and the purchase or lease of special equipment or supplies to one-time grants only. The department responds that architectural modifications and the purchase or lease of special equipment *costing between \$600 and \$3600* are limited to a one-time grant.

Regarding §401.686(k)(2), one commenter expressed concern over determining the lowest and best bid. The commenter asked if the administering agency could overrule a person's choice of a higher bid. The department responds that determining the lowest and best bid requires careful consideration of the information contained in the bid. The lowest bid may not necessarily be the best bid for a number of factors. If the person selects a higher bid, then the administering agency staff have a responsibility to ask the person to provide rationale or justification for the selection. The department emphasizes that

the selection of a vendor is *negotiated* between the person and staff.

One commenter asked if persons participating in Assertive Community Treatment (ACT) were eligible for program assistance. The department responds that persons participating in ACT are currently eligible only if program assistance is not used to supplant a service that ACT is required to provide.

One commenter stated that the proposed revisions continue to "disempower" the consumer; empower staff; place time consuming, unnecessary, and repetitive eligibility requirements on consumers; violate the purpose, content, and intent of the state statute; and cost the department more administrative time and money. The department responds that the proposed revisions reflect the recommendations of the Legislative Budget Board and the In-Home and Family Support Program Review Panel, which includes consumer and consumer advocate representation. The revisions provide guidelines for uniform implementation which will enable administering agencies to provide assistance to more people.

Regarding §401.685(a)(1), one commenter objected to the annual redetermination of a diagnosis of mental illness. The commenter stated that redetermination was unnecessary because many mental illnesses are incurable. The commenter also objected to the language "substantially impairs the person's thought, perception of reality, emotional process, or judgment, or grossly impairs the person's behavior as manifested by recent disturbed behavior" by stating that many consumers are able to keep their "recent disturbed behavior" within their homes. The commenter further stated that the determination of substantially impaired behavior is a psychiatric decision, which should not be determined by any MHMR staff, including professional staff. The commenter also stated that consumers receiving SSDI or SSI based on a mental health diagnosis should automatically be eligible for program assistance. Another commenter objected to the annual redetermination of a diagnosis of mental illness due to cost. The department responds that the requirement is consistent with its mental health service system standard which requires a diagnosis upon admission into services, 90 days after admission, and annually thereafter until discharge. Regarding mental illnesses being incurable, the department believes that recovery from mental illness is not only possible, but also attainable in many cases. Symptoms can be cyclic and because so many people request assistance, it is crucial to establish eligibility based on a *current* need. Regarding who is qualified to evaluate the extent of behavioral impairment, the department responds that these decisions should be made by qualified persons without regard to their employer. Regarding recipients of SSDI or SSI benefits being automatically eligible for assistance, the department responds that since federal regulations do not require periodic review and proof of a current mental disability from its SSDI or SSI recipients, the department declines to assign automatic eligibility for assistance to those recipients. The department notes that once a person is eligible for Medicaid, SSDI and SSI benefits become an entitlement. The TDMHMR In-Home and Family Support Program is not an entitlement program.

Regarding §401.684(a)(8), one commenter asked whether program assistance could be used to build a wheelchair ramp for a person with a mental disability who also had a physical disability.

ity that required the use of a wheelchair. The department responds that the language in §401.684(a)(8), which states "...or access of the person," allows for architectural modifications to the home to accommodate the person's physical disability. The department notes that the architectural modifications are limited to the person's home. Assistance for architectural modifications to other sites the person may visit is not allowed.

Regarding §401.686(a)(5), one commenter supported contacting persons on the waiting list to determine their continued interest in receiving assistance. The department responds by noting that language has been modified to state that persons on record as waiting for assistance will be contacted annually to determine if there has been a change in their eligibility factors.

One commenter stated that a lack of adequate training results in inconsistent implementation of the program. The commenter expressed concern about people with physical and mental disabilities being shuffled between the department and TDHS and recommended that the program be administered by a single agency. The department responds that it recognizes the value of consistent implementation and offers state-wide training and training materials each time the rule is amended. The department notes that a diagnosis of a mental disability makes a person eligible for the TDMHMR program, and the person's physical disabilities that are related to his/her mental disability are assessed holistically. Regarding the commenter's recommendation that a single agency administer the program, the department responds that such action requires legislative authority.

These new sections are adopted under the Texas Health and Safety Code, §532.015, which provides the Texas Mental Health and Mental Retardation Board with broad rulemaking authority.

§401.683. Definitions.

The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise:

Administering agency - An entity that the department designates to administer the TDMHMR In-Home and Family Support Program in a specified service area.

Assistance - A grant awarded within a fiscal year by the TDMHMR In-Home and Family Support Program to a person to purchase allowable services.

CARE - The Client Assignment and Registration System database of TDMHMR.

Date of request - The documented date that the person's eligibility is determined in accordance with §401.685 of this title (relating to Eligibility Determination).

Department - The Texas Department of Mental Health and Mental Retardation (TDMHMR).

Developmental delay - A significant variation in normal development, as measured by appropriate diagnostic instruments and procedures, in two or more of the following areas:

- (A) cognitive;
- (B) physical;

- (C) communication;
- (D) social or emotional; or
- (E) adaptive.

Emergency - A documented life-threatening situation related to the person's mental disability or documented impending out-of-home placement which can be prevented with immediate assistance.

Family - The person, the person's parent(s), guardian(s), spouse, child(ren), sibling(s), and no more than three unrelated individuals who live with the person.

Guardian - An individual who, pursuant to a court order entered in accordance with the Texas Probate Code, is the guardian of the person of another.

Local authority - An entity to which the Texas Board of Mental Health and Mental Retardation delegates its authority and responsibility within a specified region for the planning, policy development, coordination, resource development and allocation, and for supervising and ensuring the provision of mental health services to persons with mental illness and/or mental retardation services to persons with mental retardation in one or more local service areas.

Mental disability - A mental illness (as defined in this section), mental retardation, a pervasive developmental disorder, or a developmental delay in a child between the ages of 0 and 4, which:

- (A) is an impairment that is likely to continue indefinitely;
- (B) results in substantial functional limitations in one or more of the following major life activities:
 - (i) self-care;
 - (ii) receptive and expressive language;
 - (iii) learning;
 - (iv) mobility;
 - (v) self-direction;
 - (vi) capacity for independent living; and
 - (vii) economic self-sufficiency; and

(C) reflects the person's need for services or supports which are of lifelong or extended duration and are individually planned and coordinated.

Mental illness - Consistent with the Texas Mental Health Code, Texas Health and Safety Code, §571.003, an illness, disease, or condition which either:

- (A) substantially impairs the person's thought, perception of reality, emotional process, or judgment; or
- (B) grossly impairs behavior as manifested by recent disturbed behavior.

Mental retardation - Consistent with the Persons With Mental Retardation Act, Texas Health and Safety Code, §591.003, significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior and originating during the developmental period.

Natural home - The home in which the person with a mental disability lives that is either the residence of his/her parent(s) or guardian(s),

or extended family member(s) or the home where the person has selected to live, with or without roommates, in the community. A natural home utilizes natural support systems such as family, friends, coworkers, and services available to the general population.

Other support programs - All forms of local, state, or federal assistance; contract programs; or support provided by public or private funds to persons with a mental disability or their families.

Parent - A natural, foster, surrogate, or adoptive parent.

Person - A person with a mental disability or the person's family, whichever is applicable.

Pervasive developmental disorder - A pervasive developmental disorder beginning in childhood, including autism, that meets the criteria established in the most recent edition of the *Diagnostic and Statistical Manual (DSM)*.

TDMHMR In-Home and Family Support Program - A program developed pursuant to the Texas Health and Safety Code, Chapter 535, that disburses funds as assistance to persons with a mental disability or their families for the purpose of purchasing services and items that are above and beyond the scope of usual needs (i.e., basic clothing, food, shelter, medical care, and education), that are necessitated by the person's mental disability, and that directly support the person to live in his/her natural home, rather than living in a more restrictive setting at a higher cost. The program accomplishes its purpose by assisting persons in making decisions about their service needs, integrating persons into community living by promoting self-sufficiency, and ensuring flexibility to meet the unique needs identified by persons. It is not the program's purpose to improve the living conditions of persons living at or below the poverty level or to purchase desirable services or items that do not directly relate to the person's mental disability. Program funds:

(A) are used to purchase items or services that would not be required if the person did not have a mental disability;

(B) are disbursed based upon their availability; and

(C) are not an entitlement or an income supplement.

§401.684. Allowable and Unallowable Services.

(a) Allowable services. TDMHMR In-Home and Family Support Program funds may be used to provide services that relate to the person's mental disability and directly support the person to live in his/her natural home, rather than living in a more restrictive setting at a higher cost. Those services are:

(1) medical, surgical, therapeutic, diagnostic, and other health services, including medication;

(2) counseling or training programs that assist the person in an independent living situation or assist the family in providing proper care for the person, and that provide for the special needs of that person or family;

(3) attendant care, home health aid services, homemaker services, and chore services that provide assistance with training, routine body functions, dressing, preparation and consumption of food, and ambulation;

(4) transportation for the person;

(5) transportation and room and board incurred by the person or family during the person's evaluation for services or treatment that has been preapproved by the administering agency;

(6) respite assistance for the family;

(7) other services or items consistent with the intent of state statute and this subchapter and as negotiated between the person and the administering agency;

(8) architectural modifications to the home and purchase or lease of special equipment that improve or facilitate the care, treatment, therapy, general living conditions as related specifically to the person's mental disability, or access of the person; and

(9) specialized child care costs in excess of the prevailing rate for routine child care.

(b) Unallowable services. TDMHMR In-Home and Family Support Program funds may not be used to provide the following services or those services that do not relate to the person's mental disability and do not directly support the person to live in his/her natural home, rather than living in a more restrictive setting at a higher cost:

(1) purchase or long-term lease of vehicles, or routine vehicle maintenance;

(2) past due expenses;

(3) income taxes;

(4) abortion and emergency room services;

(5) services in segregated settings;

(6) accident insurance and Medicare premiums;

(7) death benefits, burial policies, and funeral expenses;

(8) costs for allowable services incurred before the written plan is approved;

(9) food, routine shelter, routine utilities, routine home repairs, routine home appliances, routine furnishings, and yard work;

(10) items or services paid for or reimbursed by private insurance, Medicaid, Medicare, or other support programs;

(11) over-the-counter medications;

(12) architectural modifications to a public facility;

(13) items or activities that are primarily for the person's recreation;

(14) school tuition or fees, or equipment/items/services that should be provided through the public school system;

(15) restrictive restraint devices;

(16) routine child care;

(17) computers, unless for use as an assistive technology device and necessary to perform a critical or essential function such as environmental control, or written or oral communication, which the person is unable to perform without the use of the computer; and

(18) services provided by an individual under the age of 18 years.

§401.685. Eligibility Determination.

A request for assistance must be made on an individual basis by the person with a mental disability or the person's family. If the person with a mental disability lives independently, that person must be 18 years of age or older to request assistance. Eligibility is determined

on the basis of the following four factors, which are redetermined annually.

(1) Diagnosis.

(A) The person is eligible if he/she:

(i) has been diagnosed within the previous 12 months to have a mental illness, which at the present time, substantially impairs the person's thought, perception of reality, emotional process, or judgment, or grossly impairs the person's behavior as manifested by recent disturbed behavior; or a pervasive developmental disorder;

(ii) is between the ages of 0 and 18 years and has been diagnosed within the past three years to have mental retardation;

(iii) is age 18 years or older and has been diagnosed within the past five years to have mental retardation; or

(iv) is between the ages of 0 and 4 years and has a developmental delay as determined or redetermined within the previous 12 months.

(B) Diagnostic eligibility is determined in one of three following ways.

(i) A person meeting the criteria in subparagraph (A) of this paragraph who has previously received services from the Texas Department of Mental Health and Mental Retardation or a community mental health and mental retardation center is eligible. Additional evaluation or documentation of diagnosis is not required unless deemed necessary by intake staff.

(ii) A person who submits a current diagnosis or assessment from a private practitioner/service provider licensed or certified in a relevant profession which indicates that the person meets the criteria in subparagraph (A) of this paragraph is eligible. Additional evaluation or documentation may be required.

(iii) A person who meets the criteria in subparagraph (A) of this paragraph as determined by the professional staff of the administering agency is eligible. Additional evaluation or documentation of diagnosis is not required unless deemed necessary by intake staff.

(C) For persons otherwise meeting the criteria described in paragraphs (2)-(4) of this section, eligibility may be granted for an emergency on a temporary basis for up to 60 days on a one-time basis. Documentation substantiating diagnostic eligibility is required within 30 days of disbursement of assistance for the emergency.

(2) Residency. Residency eligibility is determined if proof of residency indicates:

(A) the person is a resident of the administering agency's specified service area. (If the family of a person with a mental disability is requesting assistance, then the person and his/her family must be residents of the administering agency's specified service area); and

(B) the person is living in his/her natural home, which is not:

(i) an establishment with three or more unrelated individuals of any age, each with a mental disability, in which the establishment furnishes room, board, and general supervision;

(ii) a 24-hour residential program or one of the following programs:

(I) Home and Community-based Services (HCS);

(II) Home and Community-based Waiver Services - OBRA (HCS- OBRA);

(III) Community Living Assistance Support Services (CLASS);

(IV) Community Based Alternatives (CBA); or

(V) Texas Rehabilitation Commission's Deaf/Blind Waiver; or

(iii) a Medicaid facility or a residential facility of the department or of another state agency.

(3) Financial.

(A) Financial eligibility is determined based upon:

(i) the financial resources of the person with a mental disability who is age 18 years or older and the person's spouse, if married; or

(ii) the financial resources of the parents of the person with a mental disability who is under the age of 18 years.

(B) The administering agency bases its determination of financial resources on the adjusted gross income from the previous year's federal income tax return (Form 1040EZ, 1040A, or 1040) or other documented indicators, as well as child support, court settlements, trusts, and other sources of income.

(C) Persons with income at or above 105% of the Texas median income level are assessed a copayment in accordance with the In- Home and Family Support Program Income Copayment Schedule as found in 40 TAC §48.2703(d), which is a sliding scale with a base for full compensation using the prevailing Texas median income levels established annually by the Texas Department of Human Services (TDHS) in effect on September 1 of each fiscal year.

(D) Persons with income below 105% of the Texas median income level are assessed a copayment of \$1.

(E) Pursuant to the Texas Health and Safety Code, §535.003(f), unless required by federal regulations, a local or state agency may not consider assistance received through the TDMHMR In-Home and Family Support Program in determining eligibility for other support programs.

(4) Need. Administering agency staff shall consult with the person to identify the allowable services for which the person is eligible. The consultation includes a discussion of the person's needs and goals or desired outcomes and how an allowable service(s) could meet those needs and achieve the person's goals or desired outcomes. Staff shall also review the results of the person's current evaluations, program plans, and medical reports to identify the allowable services for which the person is eligible.

(A) Determination of availability of services or items from other support programs. The TDMHMR In-Home and Family Support Program is a program of last resort, therefore, assistance may not be used to supplant services available through other local, state, or federal programs, but may be used to supplement services

provided and may be granted to persons receiving benefits under a governmental entitlement program. For each service the person requests and for each allowable service for which the person is eligible, staff shall determine if the person is eligible to receive that service from other support programs, including the local authority, which provides services pursuant to a contract with the department (e.g., supported housing, respite, Assertive Community Treatment, psychoactive medication). If the administering agency determines that the person is eligible to receive the service from other support programs and that the service is available, then the administering agency shall deny the service.

(i) Denial of a specific service does not constitute denial of other services.

(ii) If the administering agency denies a service, it shall provide to the person information for referral to the appropriate other support program and information on how to appeal the denial in accordance with §401.688 of this title (relating to Appeal).

(iii) If a person is on the waiting list of other support programs to receive the same service as requested of the TDMHMR In- Home and Family Support Program, then the person may be eligible for that service until it becomes available from the other support programs.

(B) Exception for certain population. If a person, who is identified in CARE as currently receiving services from the administering agency with funds that were previously classified as Prospective Payment Program (PPP) funds or Companion Program (CP) funds, requests assistance and meets the eligibility criteria in paragraphs (1)-(3) of this section, then assistance is limited to a one-time grant for the sole purpose of architectural modifications to the natural home, if it is identified as an allowable service for which the person is eligible in accordance with this paragraph.

§401.686. Processing and Evaluating Requests and Distributing Assistance.

(a) Processing of requests. When a person contacts the administering agency and requests assistance, the administering agency shall determine if the person is eligible for assistance in accordance with §401.685 of this title (relating to Eligibility Determination) within 30 calendar days. Persons requesting assistance are responsible for providing necessary information to determine eligibility in an accurate and timely manner.

(1) The administering agency will not discriminate against any person on the grounds of race, color, national origin, religion, sex, age, disability, or political affiliation.

(2) The administering agency shall process requests for assistance in chronological order by the date of request as defined in §401.683 of this title (relating to Definitions).

(3) If TDMHMR In-Home and Family Supports Program funds are not available on the date of request, then the eligible person's name is placed on record as waiting for assistance.

(A) A record of persons waiting for assistance is maintained continually from one fiscal year to the next by the administering agency.

(B) Persons on record as waiting for assistance must notify the administering agency within 10 calendar days of a change in their eligibility factors as described in §401.685 of this title (relating to Eligibility Determination).

(C) If there has been a change in a person's eligibility factors, then the administering agency must redetermine the person's eligibility in accordance with §401.685 of this title (relating to Eligibility Determination) within 30 calendar days.

(D) Persons on record as waiting for assistance are contacted annually to determine if there has been a change in their eligibility factors.

(b) Written plan. When current eligibility has been determined and assistance becomes available, the administering agency staff and the person develop a written plan in accordance with this subsection. The amount of assistance is determined in accordance with the written plan. The written plan is approved by a staff member designated by the administering agency. The person is provided a copy of his/her approved written plan.

(1) The written plan must include:

(A) the identification of the direct recipient of the service or item (i.e., the person with a mental disability or the person's family);

(B) the name of the agency staff member responsible for the development of the plan;

(C) a description of each need that requires an allowable service, how each service specifically relates to the person's mental disability, how each service will directly support the person to live in his/her natural home, and how each service will positively impact the mental disability;

(D) a description of each allowable service to be provided, including type and method of delivery;

(E) a statement of the goal(s) or desired outcome(s) and how each service will achieve the goal(s)/outcome(s) or encourage self-sufficiency, if appropriate;

(F) a description of the quantity, frequency, and duration of services to be provided and the rate, amount, and frequency of payment, with designation of payee;

(G) a list of the other support programs contacted in determining that the person was not eligible for the services from other support programs as required in §401.685(4)(A) of this title (relating to Eligibility Determination);

(H) a listing of specific qualifications or requirements for service providers;

(I) a statement by the person and the staff of the administering agency that the vendor selected to render the designated services has been approved as a qualified service provider as agreed upon by the person and staff;

(J) the percentage of copayment;

(K) a statement by the person that he/she agrees to provide a receipt for each item or service purchased with assistance, and that the receipt will:

(i) state the total amount of the cost, which includes the copayment;

(ii) include the date(s) the item or service was provided, purchased, or delivered (which must be after the person's written plan was approved);

(iii) include the vendor's name and identifying information;

(iv) be marked paid; and

(v) be an original;

(L) a description of how the written plan will be monitored, designating the staff person responsible, the frequency of review, and review criteria (e.g., home visits or face-to-face visits with the person; accounting for all receipts and necessary bids, ensuring all receipts and bids meet the criteria described in this subchapter; and ensuring accurate completion of provider logs);

(M) a statement that the person agrees to comply with the written plan and that the person understands that noncompliance may result in the person being ineligible for assistance and liable for restitution;

(N) a statement that the person understands that it is a felony of the third degree to knowingly make or cause to be made a false statement or representation or to solicit or accept assistance for which the person knows he/she is not eligible; and

(O) the signatures of the staff persons and the person who developed the written plan and the date it was signed.

(2) A written plan is current only for the fiscal year for which it is developed.

(3) The written plan becomes a part of the person's treatment plan if other nonresidential services are provided to the person by the administering agency.

(c) Change of a person's eligibility factors. Persons currently receiving assistance must notify the administering agency within 10 calendar days of a change in their eligibility factors as described in §401.685 of this title (relating to Eligibility Determination). If there has been a change in a person's eligibility factors, then the administering agency must redetermine the person's eligibility in accordance with §401.685(4) of this title (relating to Eligibility Determination) within 30 calendar days.

(d) Reevaluation. Current recipients are reevaluated within 30 calendar days following completion of assistance or at the end of the fiscal year, whichever comes first, to determine if the goal(s) or outcome(s) as stated in the person's written plan has been achieved

(1) Within 30 calendar days of completion of assistance. If the reevaluation indicates:

(A) the stated goal(s) or outcome(s) has been achieved, then assistance ceases and the person exits the program; or

(B) the stated goal(s) or outcome(s) has not been achieved or the person identifies an additional need, then staff will determine if an allowable service can meet the need in accordance with §401.685(b) of this title (relating to Eligibility Determination) and, if appropriate and funds are available, amend the written plan.

(2) End of the fiscal year. If the reevaluation indicates:

(A) the stated goal(s) or outcome(s) has been achieved, then assistance ceases and the person exits the program; or

(B) the stated goal(s) or outcome(s) has not been achieved or the person identifies an additional need, then staff will:

(i) redetermine the person's eligibility in accordance with §401.685 of this title (relating to Eligibility Determination); and

(ii) develop a new written plan in accordance with §401.686(b) of this title (relating to Processing and Evaluating Requests and Distributing Assistance).

(e) Emergency assistance. Assistance may be provided in an emergency to eligible persons on record as waiting for assistance to the extent necessary to resolve that emergency. After resolution of the emergency the eligible person remains on record as waiting for assistance. The written plan addresses only those services required to resolve the emergency. Emergency assistance may also be provided in accordance with §401.685(1)(C) of this title (relating to Eligibility Determination).

(f) CARE data entry. For purposes of entry of data into the CARE system, a family receiving assistance is principally identified by the name of the person on whose behalf assistance has been obtained.

(g) Distribution of assistance. An eligible person may qualify for one or both of the following two categories of assistance.

(1) Assistance of up to \$3600 per fiscal year to purchase allowable services. Disbursement of assistance:

(A) may be in a lump sum or on a periodic basis;

(B) may be made to the person or vendor; and

(C) is reduced by the amount of copayment(s).

(2) Assistance of a one-time grant between \$600 and \$3600 for architectural modifications and the purchase or lease of special equipment in accordance with §401.684(a)(8) of this title (relating to Allowable and Unallowable Services).

(A) Assistance is reduced by the amount of copayment.

(B) If available, these funds may be encumbered from one fiscal year to the next to pay for items that are not completed or received by the end of the fiscal year in which they were approved.

(C) Special equipment purchased with TDMHMR In-Home and Family Support Programs funds become the property of the person and are not inventoried by the administering agency or the department. Architectural modifications purchased with TDMHMR In-Home and Family Support Programs funds become the property of the person or property owner, as appropriate, and are not inventoried by the administering agency or the department.

(D) Architectural modifications to leased or rented property are funded only upon the written approval of the owner or property manager.

(h) Additional assistance. On a case-by-case basis, the commissioner of the department or designee may grant assistance to an eligible person in excess of that provided for in subsection (g) of this section.

(i) Competitive bids. Prior to disbursement of assistance, persons shall obtain bids to determine the prevailing costs for architectural modifications and the purchase or lease of special equipment. The reasons for not obtaining bids must be documented in the written plan.

(1) Three oral bids are obtained for costs between \$250 and \$600. Three written bids are obtained for costs \$600 and more.

(2) The selection of vendor is negotiated between the person and the administering agency based upon the lowest and best bid. In determining the lowest and best bid, consideration is given to such factors as price, specifications, service delivery date, warranty, etc.

(3) If only one source can provide the service, then documentation must be included in the written plan supporting that no other source was available.

§401.687. Administrative Implementation.

(a) Programmatic and fiscal accountability. The administering agency must maintain programmatic and fiscal records documenting its implementation of the TDMHMR In-Home and Family Support Program in such a manner that the records can be audited by the department and the administering agency. The records must be retained for five years.

(b) Rates. Assistance for allowable services, architectural modifications, and purchase or lease of special equipment shall not exceed the prevailing rates for the specified service area as determined by the administering agency.

(c) Appropriation of funds for emergencies. Administering agencies may set aside no more than 10% of allocated TDMHMR In-Home and Family Support funds to distribute as assistance in an emergency as defined in §401.683 of this title (relating to Definitions).

(d) Penalties. Persons who knowingly do not comply with their written plans are no longer eligible for assistance and may be liable for restitution. Data entry into the CARE system shall reflect such noncompliance and ineligibility. Noncompliance includes, but is not limited to:

(1) purchasing items or services with assistance that have not been approved in the written plan;

(2) failure to verify purchases within 30 days;

(3) failure to return unused funds within 90 days or prior to the end of the fiscal year, whichever comes first; or

(4) use of a vendor that has not been approved in the written plan.

(e) Felony of the third degree. In accordance with the Texas Health and Safety Code, §535.014, a person commits a felony of the third degree who, in requesting assistance:

(1) makes or causes to be made a statement or representation that the person knows to be false; or

(2) solicits or accepts assistance for which the person knows he/she, or the person for whom the solicitation is made, is not eligible.

(f) Reporting a felony of the third degree. An administering agency that suspects a person of committing a felony of the third degree as described in subsection (e) in this section will report such information to the appropriate law enforcement officials in the county where the person suspected of violating the statute makes an application for assistance.

(g) Coordination with Texas Department of Human Services (TDHS). On a quarterly basis the department coordinates with TDHS

to ensure that persons receiving funds through the TDHS In-Home and Family Support Program are not receiving assistance from the TDMHMR In-Home and Family Support Program. The department refers discrepancies to administering agencies for resolution. Each administering agency is responsible for the ongoing coordination with the TDHS office in its region to ensure that persons receiving funds through the TDHS In-Home and Family Support Program are not receiving assistance from the TDMHMR In-Home and Family Support Program.

§401.688. Appeal.

If the administering agency denies a person's request for assistance, it shall provide to the person a copy of the In-Home and Family Support Program Appeal Procedures which is referenced as Exhibit A in §401.691 of this title (relating to Exhibit), concerning the right to appeal the denial of assistance and the procedures for doing so. The administering agency is responsible for communicating to the person, verbally or in writing in the person's primary language, the information contained in Exhibit A. Denial of a request for assistance due to lack of available funding is not grounds for appeal.

(1) The first level of appeal follows the procedures as outlined in §401.464(g) and (h) of this title (relating to Notification and Appeals Process) of Chapter 401, Subchapter G (concerning Community Mental Health and Mental Retardation Centers).

(2) If the decision in the first level of appeal described in paragraph (1) of this section is unsatisfactory to the person, then the person may request an administrative review by the Legal Services Division of the department. The person must request an administrative review within 10 working days of receipt of notification of the first appeal decision. The person may choose to have the attorney conducting the review:

(A) conduct the administrative review at the Legal Services office in Austin, Texas, or other mutually agreed upon location, with the person and a representative from the administering agency present;

(B) conduct the administrative review by telephone conference with the person and a representative from the administering agency; or

(C) make a determination based solely upon documents provided by the person and the administering agency without the presence of any of the parties involved.

(3) The administrative review described in paragraph (2) of this section will:

(A) be conducted no sooner than 10 working days and no later than 30 working days of receipt of the request for an administrative review unless an extension is granted by the director of Legal Services;

(B) include a review of the pertinent information concerning the denial of the person's request and may include consultation with department staff who administer the TDMHMR In-Home and Family Support Program;

(C) result in a final decision which will either uphold, reverse, or modify the original decision to deny the person's request; and

(D) be the final step of the appeal process for the TDMHMR In-Home and Family Support Program.

(4) Within five working days of the administrative review, the final decision will be:

(A) communicated to the person in writing in the person's primary language; and

(B) provided in writing to the administering agency.

§401.689. Program Standards and Quality Management.

(a) Program standards. The administering agency shall incorporate reasonable standards for services provided through the TDMHMR In-Home and Family Support Program and shall document the specific standards and provider qualifications in the written plan. Department rules, standards, and other applicable guidelines may be used when appropriate and/or any other specification mutually agreed upon by the administering agency and the person.

(b) Quality management and other reviews. Quality management activities will be provided consistent with the administering agency's existing internal review mechanism for periodic program evaluation. Consistent with state and federal law, representatives from the department and other agencies may review the program periodically.

§401.690. Data Collection.

On a quarterly basis, each administering agency shall collect data to be submitted to the TDMHMR In-Home and Family Support Program coordinator at the department's Central Office. The data shall include:

(1) the number of persons who received assistance from the administering agency during the fiscal year;

(2) the number of persons who are currently waiting for assistance identified by the year placed on record as waiting;

(3) the type and amount of services provided;

(4) fiscal information to include income categories of persons receiving assistance and the range of copayments; and

(5) other data as requested by the department.

§401.691. Exhibit.

Exhibit A, referenced in this subchapter, is the In-Home and Family Support Appeal Procedures. Copies of Exhibit A may be obtained by contacting TDMHMR, Office of Policy Development, P.O. Box 12668, Austin, TX 78711-2668.

§401.692. References.

Reference is made in this subchapter to the following statutes and rules:

(1) Texas Health and Safety Code, Chapter 535;

(2) Texas Mental Health Code, Texas Health and Safety Code, §571.003;

(3) Persons With Mental Retardation Act, Texas Health and Safety Code, §591.003;

(4) Chapter 401, Subchapter G of this title, relating to Community Mental Health and Mental Retardation Centers;

(5) Texas Probate Code; and

(6) 40 TAC §48.2703(d).

§401.693. Distribution.

This subchapter shall be distributed to:

(1) members of the Texas Mental Health and Mental Retardation Board;

(2) executive, management, and program staff of Central Office;

(3) executive directors of all community mental health and mental retardation centers;

(4) executive directors of all state-operated community services; and

(5) advocacy organizations.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 19, 1997.

TRD-9706620

Ann Utley

Chairman, Texas MHMR Board

Texas Department of Mental Health and Mental Retardation

Effective date: September 1, 1997

Proposal publication date: March 11, 1997

For further information, please call: (512) 206-4516



Chapter 402. Client Assignment and Continuity of Services

Subchapter I. Movement of Individuals with Mental Retardation from Department Facilities

25 TAC §§402.311-402.323

The Texas Department of Mental Health and Mental Retardation adopts the repeal of §§402.311-402.323, governing movement of individuals with mental retardation from department facilities, without changes to the proposed text as published in the February 28, 1997, issue of the *Texas Register* (22 TexReg 2326). The sections will be replaced by new sections governing similar matters which are contemporaneously adopted in this issue of the *Texas Register*.

The repeal will permit the adoption of new sections which implement assurances given by the department to the Health Care Financing Administration (HCFA) and the Texas Health and Human Services Commission (THHSC) regarding "freedom of choice" in placement decisions by individuals receiving mental retardation services in state schools and state centers or by the legally authorized representatives of those individuals. The new sections also reflect changes in the department's organization since the sections being repealed were adopted in 1994.

No public comment was received on the proposal.

The repeal is adopted under the Texas Health and Safety Code, §532.015, which provides the Texas Mental Health and Mental Retardation Board with broad rulemaking authority.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706701

Ann Utley

Chair, Texas MHMR Board

Texas Department of Mental Health and Mental Retardation

Effective date: September 1, 1997

Proposal publication date: February 28, 1997

For further information, please call: (512) 206-4516

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25 TAC §§402.311-402.318, 402.321-402.324

The Texas Department of Mental Health and Mental Retardation adopts new §§402.311-402.318 and 402.321-402.323, governing movement of individuals with mental retardation from department facilities with changes to the proposed text as published in the February 28, 1997, issue of the *Texas Register* (22 TexReg 2327). Section 402.324 is adopted without changes. Sections 402.319-402.320 are not adopted and the proposal is withdrawn in this issue of the *Texas Register*. The new sections replace existing sections governing similar matters which are contemporaneously repealed in this issue of the *Texas Register*.

The new sections implement assurances given by the department to the Health Care Financing Administration (HCFA) and the Texas Health and Human Services Commission (THHSC) regarding "freedom of choice" in placement decisions by individuals receiving mental retardation services in state schools and state centers or by the legally authorized representatives of those individuals. As other department rules relating to Medicaid-covered mental retardation supports and services are revised, provisions regarding "freedom of choice" will be incorporated where appropriate. These new sections also reflect changes in the department's organization since the existing sections were adopted in 1994 and describe principles and procedures for ensuring effective discharge planning and continuity of services for individuals moving from state schools and state centers into the community.

The subject matter of the two sections which will not be adopted – movement into the community of individuals with mental retardation who are receiving inpatient mental health services in state hospitals – will be incorporated into existing department rules which apply to state hospitals. Because those two sections are not being adopted, references to "state hospital" are deleted in §§402.311, 402.314(k), and 402.321(a). In addition, references to "state school or state center" are deleted in the titles of §§402.316-402.318 and are replaced with "facility" in the text of §§402.312, 402.313, 402.314(d), 402.315(g), (j), and (k), 402.316(a), and 402.318(e), (g), and (i).

A reference is added in §402.311(1)(A) to "Texas Department of Mental Health and Mental Retardation." A similar reference in subparagraph (B) is deleted. A new subparagraph (C) is added to reference a statutory requirement for joint discharge planning. The word "ongoing" is deleted in former subparagraph (C), now subparagraph (D), in reference to monitoring of individuals who move from a facility to a community living arrangement because the monitoring discussed in the subchapter will be terminated when the conditions agreed to by the individual, legally authorized representative, mental retardation authority,

facility, regional monitor, and provider, as specified in the community living/discharge plan, are met. Former subparagraph (D) is deleted because it references provisions relating to state hospitals.

In §402.313 the definition of "community living profile" is revised to indicate that the profile is the first section of the "community living/discharge plan" and to specify that the sample format of the plan available from the department's Office of Policy Development may be used as is or modified as necessary. The reference to the sample plan format in the definition of "community living/discharge plan" is similarly modified. The definition of "continuity of services activities" is revised to reflect that choices by the LAR are made in the best interests and on behalf of the individual. Definitions of "facility," "individual," and "interdisciplinary team" are revised to eliminate references to state hospitals. The definitions of "individualized treatment plan" and "treatment team" are deleted as unnecessary because provisions dealing with state hospitals will not be adopted. Definitions are added for "community resource coordination groups," "consensus," "discharge," "head of facility," and "permanency planning." The definition of "LAR (legally authorized representative)" is revised to clarify that the authorization in guardianship orders to make decisions regarding the individual's living arrangements can be either explicit or implicit. The definition of "regional monitor" is modified to reflect that the monitors represent the department and provide oversight of the local authority's performance.

Language is revised in §402.314(a) to clarify that the individual does not have to "experience" a group home or job in the community before the individual or LAR could say "No, we do not want this" and that the individual (or the LAR on the individual's behalf) may elect not to take advantage of the supports, experiences, and options which are offered.

Language from §402.315(l) has been incorporated into §402.314 as new subsection (c) and revised to include references to a board policy statement and a Texas Government Code provision, both of which stress a commitment to providing the supports and services necessary to permit children to grow up in their family homes. Language is revised in §402.314(c), which is relettered as subsection (d), to clarify the responsibilities of the mental retardation authority (MRA) when the community living arrangement is in jeopardy and alternative services may be required.

In the interests of using the staff and fiscal resources of Central Office more efficiently, the department has revised §402.315(a) to delete requirements that lists of individual and providers be provided either quarterly or twice annually to MRAs. Instead MRAs are directed to access CARE for information concerning individuals and their community living status, as well as listings by county of Home and Community-based Program (HCS) program providers. Comparable listings of ICF/MR program providers currently are not available through CARE but can be requested from the Office of Medicaid Administration.

Language is added to §402.315(b)(2) to clarify that a school district representative needs to be invited only to those IDT meetings at which movement by the individual to the community will be discussed. Subsection (c) is revised to specify that the individual may choose to include one or more actively involved

family members or other persons in IDT meetings and that the facility will make an effort to schedule meetings at times convenient for those persons. In subsection (d), language is revised to clarify that the individual's designated MRA needs to be invited to send a representative only to those meetings at which movement will be discussed. Subsection (f) is revised to include a reference to family members. Language in subsection (g) is revised to clarify that when the individual is a child, return of the child to the family home from the facility is at the choice of the family.

The language in §402.315(l) is rewritten to emphasize the rights of parents to choose the service settings they believe best serve the needs of their minor children. Paragraphs (1), (2), (4), and (5) are deleted and, with some revision, incorporated into the philosophy and principles section as new §402.314(c)(1)-(3). Paragraph (3) is renumbered as paragraph (1) and revised to emphasize that families have access to a variety of community support options and to reinforce to facility and MRA staff the importance of being sensitive to parents' concerns and choices for their children. Paragraph (6) is renumbered as paragraph (2) and revised to encourage IDTs, with the involvement and agreement of family members, to respond to the changing needs and interests of the child and the family and to track the child's development and the availability of community support options. New subsection (m) is added in §402.315 permitting persons unable to attend an IDT meeting in person to participate by phone.

In §402.316(e) and §402.317(d)(2), the language is revised to specify that the IDT will obtain signed consents for the release of information to selected providers and that the signed consent form will accompany the profile when sent to the designated MRA. Within §402.316, subsection (h) is revised to substitute "the desired services" for "that setting" and subsection (i) is revised to substitute "integration" for "reintegration."

Three new subsections are added in §402.317 with an appropriate relettering of the existing subsections. New subsection (a) requires the IDT to evaluate any issues which could constitute barriers to a successful transition by the individual to community living and possible solutions before a recommendation for community living is made. The individual's inability to provide legally adequate consent and lack of a guardian and the lack of effective community supports and services to address behavioral or medical concerns are suggested as two possible issues. New subsection (b) requires the IDT to investigate guardianship options and to document the findings, including additional activities necessary to secure a guardian, in the community living/discharge plan. New subsection (c) describes a dispute resolution process to be followed when the IDT is unable to reach consensus. As a result of adding the new subsections, references in former subsections (c) and (e) to other subsections within the section are revised. Former subsection (i) is revised to substitute "integration" for "reintegration."

Language is revised in §402.318(a) to specify that the MRA will verify that no environmental concerns exist at the proposed setting which impact the individual's needs. Subsection (b) is revised to clarify that only one other MRA may be involved in the movement process with the designated MRA, and that the regional monitor will be assigned. Subsection (c) is revised to indicate that the regional monitor will visit the provider setting as

needed. In subsection (d), the term "provider" is replaced with "community living arrangement." New subsection (f) describes a dispute resolution process to settle disagreements between the IDT, MRA, and regional monitor when the individual can't provide consent and has no LAR and the regional monitor has not approved the provider setting. Language is added to subsection (j) that copies of records being supplied to the provider also will be offered to the individual or LAR. "When appropriate" replaces "whenever possible" in subsection (j). Subsection (k) is clarified to indicate that a copy of the original court order will be provided to the school district when a school eligible individual who was committed to the facility moves into the community. New subsection (m) requires written notification by certain providers to local school districts within three working days of a school eligible individual being admitted to the provider's services, consistent with the provisions of a recently adopted memorandum of understanding between the department, the Texas Education Agency, and seven other state agencies.

Section 402.321 is extensively revised, including the addition of new subsections, for readability and to more accurately and clearly describe how the community living/discharge plan is to be completed. The revisions include: an explanation that the timelines, monitoring intervals, and forms of monitoring are to be customized based on the abilities and needs of the individual; a provision permitting the individual, LAR, MRA, facility, and provider to develop the plan in whatever format is acceptable to all parties as long as all elements described in the section are included; a stipulation that a sample plan format available from the department may be used as is or modified as deemed appropriate; simplified references to the applicable sections of the sample format; greater specificity as to authority and responsibilities of all parties for the required elements of the plan; revisions of subsection (c)(4) to incorporate person-centered language; correction of "of" to "or" in subsection (a)(6)(E) and (F); a requirement that the plan identify the methods for verification of outcomes and criteria for a successful transition; a requirement that the MRA make a recommendation to the head of the facility, with the concurrence of the regional monitor, that the individual be discharged when the terms of the community living/discharge plan have been met; addition of a dispute resolution process in new subsection (d) for use if a provider does not actively participate in the development of the plan; a requirement that if issues cannot be resolved during the development or implementation phases of the plan the issue may be forwarded to the commissioner or designee for review and recommended action; addition of new subsection (f) describing steps to be taken if the provider does not comply with provisions of the community living/discharge plan; and addition of language in subsection (c), relettered as subsection (g), that the regional monitor or MRA staff will notify the appropriate licensing or regulatory agency immediately if they have evidence to believe the living environment is unsafe or that the individual's needs are not being met.

Language in §402.322(a) is revised to specify that the designated MRA, as recorded in CARE, will be the MRA for the local service area in which the new community living arrangement is located unless the individual or LAR prefer otherwise. Also added is a provision that the preferences of actively involved

family members concerning the designated MRA will be given consideration.

References included in the text of the subchapter have been added to the listing of laws, rules, and other policy documents in §402.323.

A public hearing was held on Friday, March 21, 1997, in Austin, to accept oral and written testimony regarding the proposed new subchapter. Testimony was offered by the parent/guardian from Richmond of a state school resident who also is the guardian of two other state school residents, and Independent Horizons, a private provider in San Antonio. Written comments were received from the following public entities and/or individuals: the parent/guardian of a state school resident, Garland; Parent Association for the Retarded of Texas (PART); Texas Respite Resource Network, San Antonio; Denton State School Family Association; MHMR Authority of Harris County; a consumer advocate and member of the department's Medical Advisory Committee, Austin; Residential Management Inc., a private provider in San Antonio; Austin-Travis County MHMR; Texas Planning Council for Developmental Disabilities, Austin; Texas Council of Community MHMR Centers, Austin; Child and Family Resources, Dallas; Educare, a private provider based in Austin; and Tropical Texas Center for MHMR, Edinburg.

Three commenters stated that the proposal violates federal Medicaid guarantees of "freedom of choice" in the selection of service providers in the Intermediate Care Facilities for the Mentally Retarded (ICF/MR) program in Texas, especially when the individual is a minor residing in a state school or state center. The commenters requested that all provisions in the policy specific to minors be deleted. The department replies that federal Medicaid regulations permit providers of ICF/MR services, public or private, to establish reasonable admission criteria.

A commenter questioned who would monitor and assure compliance with the various timelines established in the subchapter, and what the consequences of not meeting the timelines would be. The department responds that the timelines are intended to be self-monitoring, based on cooperative efforts by the involved parties. Although no consequences are established in the subchapter, any problems which occur because timelines are not met should be reported to the commissioner or designee for appropriate action. The commenter also questioned whether the rule establishes timelines for accomplishing a move once a decision is made to seek a community living arrangement. The department responds that no such timelines are contained in the subchapter and notes that the process of first finding a suitable community living arrangement and then arranging the move is highly individualized based on the needs and preferences of the individual and/or LAR and a number of other factors. The procedures described in this subchapter are significantly different from the existing procedures and are intended to make the transition of the state facility resident into the community as smooth, problem-free, and efficient as possible.

Three commenters offered support for provisions intended to permit children to live at home with their natural families as long as the needed supports and services were available and provided. The department acknowledges the support.

A commenter requested clarification regarding the functions of the "finite, transitional responsibilities" of MRA continuity of services employees and the ongoing nature of service coordination. The commenter also questioned whether case management services would no longer be mandated and whether waivers would no longer be necessary. The department responds that revisions to §402.321 concerning the community living/discharge plan address the commenter's concerns about the "finite, transitional responsibilities" for continuity of care when an individual moves from a facility into a community living arrangement. Assignment of case management services will be determined based on the individual assessment of needs. Questions regarding the "ongoing nature of service coordination" for MRAs are best answered by the MRA's contract manager, although the department expects that this issue will be addressed extensively during regional training sessions planned for this summer.

The same commenter questioned whether the lack of resources for development of community-based services and supports requested by an individual or LAR are subject to an appeals process. The department responds that appropriate community-based services and supports should be available from other providers in the HCS waiver program according to individual provider contracts as long as the cost of those services does not exceed the program cap. However, if the result is a reduction, denial, or termination of services, the decision could be appealable by the individual or LAR.

A commenter questioned why suggestions submitted during a review and comment period for an earlier version of the proposal were not reflected in this version. The department responds that some, although not all, of the commenter's earlier comments were incorporated where appropriate.

Two commenters recommended that the IDT be required to actively pursue steps to obtain a guardian for the individual who is unable to provide legally adequate consent and, if a guardian has not been procured before a recommendation for movement to the community, include in the community living/discharge plans as part of the facility's responsibility the arrangements necessary for appointment of an guardian. The department responds that new subsection (b) in §402.317 requires the IDT to investigate guardianship options and to document the findings, including additional activities necessary to secure a guardian, in the community living/discharge plan.

A commenter requested clarification on how procedures for moving an individual to the community differ when the individual will be moving to the community from a state hospital rather than a state school or state center. The department responds that the sections applying to state hospitals are not being adopted and that the difference in procedures will be clarified in the near future when revisions are proposed to department rules governing state hospitals.

A commenter stated that regional monitors are given too much authority and recommended that an appeals process be provided when the regional monitor disagrees with the IDT and the MRA concerning the appropriateness of a particular community living arrangement. The department responds that dispute resolution procedures have been inserted into the process in new §402.318(f) and in §402.321.

Two commenters stated that rulings from the Healthcare Financing Administration (HCFA) concerning freedom of choice apply not only to individuals currently receiving residential services in state facilities but also to individuals living in the community who request residential services. The department agrees with the commenters' interpretation of the HCFA rulings and notes that future revisions to other department rules will incorporate freedom of choice provisions where appropriate.

One commenter noted that the preamble to the proposal stated that Medicaid freedom of choice provisions would be incorporated "where appropriate," but that the proposal clearly indicates that facility staff will continue to try changing the mind of any individual or LAR who chooses to maintain state facility residence. The department responds that the "where appropriate" language of the preamble referred to the inclusion of "freedom of choice" provisions during the revision of other department rules when germane to the subject of those rules. The department further noted that the provisions of this subchapter are not intended to harass LARs into choosing community living for state facility residents, but to ensure that individuals and LARs are informed of potentially appropriate and less restrictive community-based supports and services being developed in the community.

Two commenters requested that the department revisit the proposed fiscal note and stated that the amounts given do not adequately cover the costs of either planning for the movement of individuals from facilities to the community or of monitoring once the individual has moved. The department has revised the fiscal note to indicate an average annual cost to MRAs of \$1,000 per individual for planning and monitoring activities instead of the \$350 per individual on which the proposed fiscal note was calculated. For the estimated 300 individuals per year moving from state schools and state centers, the revised fiscal note of \$300,000 is expected to be covered by Medicaid administrative claiming and/or targeted case management. This figure does not include individuals moving from state hospitals, and is in addition to the \$1.65 million of general revenue allocated annually to MRAs for continuity of care activities since 1994.

Concerning §402.311 which describes the purpose of this subchapter, three commenters stated that MRAs should have no role regarding state facility residents who have not agreed to move into the community. The department disagrees and responds that the Texas Health and Safety Code, §533.035, establishes the responsibilities of mental retardation authorities for planning, policy development, coordination, resource allocation, and resource development for and oversight of mental retardation supports and services in their local service areas. As part of their planning and resource development responsibilities, MRAs are expected to be aware of the needs, abilities, and status of facility residents for whom they are the designated MRA.

A commenter asked whether MRAs are going to serve as the gatekeeper or the provider of mental retardation services, and stated that MRAs cannot be fair if they are serving in a dual role. The department responds that MRAs have been instructed to establish a cap for provider programs they own or operate.

Three commenters questioned why the community living/discharge plan and the community living profile are defined sepa-

ately in §402.313 when the document distributed with copies of the proposal appears to combine the two. The commenters also stated that the plan and the profile must be incorporated into a separate exhibit section in the rule and remain attached to the rule when distributed. The department responds that while the profile is the first section of the community living/discharge plan, it is distributed to potential providers as a stand alone document at the time a decision is made to seek community placement. The remaining sections of the community living/discharge plan are completed when a provider has been located and approved and the individual is about to move; the completed plan (including the profile) is distributed to all the involved parties. The department declines to include the two documents as "exhibits" in a separate section of the subchapter, noting that documents are sample formats which may be used as is or modified as necessary. Language has been added in §402.321 clarifying that the elements which must be included in the plan are described in that section, and that the IDT with the involvement of the individual, LAR, MRA, regional monitor, and provider may use any format acceptable to all parties, including but not limited to the sample format, as long as the completed plan includes all the required elements.

Another commenter suggested rewording the definition of community living/discharge plan to specify that it will detail the responsibilities of all parties signing the plan rather than just the MRA and provider. The department agrees and has revised the definition as requested.

A commenter expressed concern that the term "individual" has become a label every bit as stigmatizing as "client" and "resident" and that while any term will someday become a label, today the most acceptable term is "person" or "people" with mental retardation. The commenter suggested that this would allow discussion of the unique attributes of people receiving services rather than using "individual" as a label. The department agrees that any term will eventually become just another label and that "individual" is rather awkward, but declines to make the recommended changes. The department notes that for several years "individual" has been the term of choice in the department's rules relating to mental retardation supports and services to avoid such confusing constructions as "guardian of the person of the person (individual)" and "persons who are actively involved with the person (individual)" and "persons who might have information about the preferences, desires, and needs of the person (individual)."

Three commenters stated that the definition of "interdisciplinary team" must be written exactly as provided in law and requested that the phrases "and other concerned persons, as appropriate," and "including recommendations of whether the individual is best served in a facility or in a community setting" be deleted. The department responds that the phrases which the commenters find objectionable do not change either the meaning or the intent of the statutory language and are included to clarify that the department considers the individual and LAR to be a part of the team and that when the individual doesn't have an LAR and can't provide legally adequate consent, the department will include family members or friends who are actively involved with the individual. Therefore, the department declines to revise the definition as requested.

A commenter noted that the terms "individualized treatment plan (ITP)" and "treatment team" are not used in the proposal but are defined in §402.313. The department has deleted the definitions. The same commenter noted that "IDT" is used in the proposed sections concerning state hospitals, yet the definition of "IDT" refers only to the MRA being a part of the IDT when the individual is a resident in a state school or state center. The department responds that the question is moot because the sections concerning state hospitals are not being adopted.

A commenter suggested advocates, possibly from The Arc or a similar advocacy organization, should be obtained for those individuals who are not able to provide consent and do not have a guardian. The department responds that language has been added to §402.317 requiring IDTs to investigate guardianship options and to document the findings, including additional activities necessary to secure a guardian, in the community living/discharge plan.

Concerning the definition of "legally adequate consent" a commenter asked who determines the individual's ability to comprehend the "nature, purpose, consequences, risks, and benefits of" living in the community and on what basis such as determination is made. The commenter recommended that such determinations need to be standardized and consistently applied, to the degree possible, across the service delivery system. The department responds that the individual's IDT is responsible for making the determination and the criteria is set forth in the federal ICF/MR standards and guidelines. The department further notes that a "uniform assessment tool" has been piloted in various settings around the state, as required by recent legislation, and that the assessment tool is currently being revised in response to the pilot findings.

Four commenters requested that the last sentence in the definition of "legally authorized representative" be deleted because most guardianship orders issued before 1993, when the Texas Probate Code was revised extensively by the 73rd Legislature, do not spell out specific types of decisions which the guardian can make on the ward's behalf. The department contends that the sentence disputed by the commenters would not invalidate either pre- or post-1993 guardianship orders and declines to delete the sentence. However, language is added to clarify that the authorization in the guardianship orders to make decisions regarding the individual's living arrangements can be either explicit or implicit. For example, a court order appointing a guardian with limited powers under Texas Probate Code, §693(b), would have to list the specific "powers, limitations, or duties" of the guardian; if one of those powers or duties permitted the guardian to decide where the ward lived, this would constitute an "explicit" authorization. On the other hand, a "guardian of the person" has the statutory right to "establish a ward's legal domicile" (Texas Probate Code, §767); this would qualify as an "implicit" authorization."

Four commenters requested that the term "experiences" be deleted in §402.314(a) because it implies that the individual must first "experience" a group home or job in the community before the individual or LAR could say "No, we do not want this." In addition, the commenters want a reference to the LAR added in both sentences of the subsection. The department disagrees with the commenters' interpretation of the proposed

language but has added language which addresses the their concerns.

One commenter asked that language be included in §402.314 addressing the role of the MRA to offer providers support and assistance to ensure a smooth transition and stable living arrangement in the community for the individual. The department responds that all parties – MRA, provider, regional monitor, and facility, as well as the individual, and LAR or actively involved family members – bear responsibility for ensuring the individual's successful transition to living in the community. The cooperative development of the community living/discharge plan by all parties – as described in §§402.318 and 402.321 – is intended to make this possible.

A commenter recommended that §402.314(b)(2), while legally accurate, be revised to recognize the LAR's role of assuring that the individual's rights are upheld; the commenter provided suggested language. The department prefers to retain the legally accurate wording, noting that the language refers to an LAR's explicit statutory right to make decisions regarding where the individual lives.

Two commenters requested that LAR be added in §402.314(b)(3). The department responds that the language appropriately ascribes to the individual as the actual recipient of services the entitlement to "training, counseling, and opportunities" and declines to revise the language as requested. The department further notes that the language as proposed is an appropriate companion to the revised language in §402.314(a).

Noting that a MRA can't "ensure" continuing residential services unless the department "ensures" additional funding can always be obtained when needed for those residential services, a commenter suggested revisions to the first sentence of §402.314(c) specifying that the MRA will work cooperatively with the individual, LAR, and provider to find alternative services. The department agrees and has revised the sentence consistent with the commenter's suggestion.

Regarding the second sentence of §402.314(c), a commenter questioned whether freedom of choice applied when a community-living arrangement fails and the individual (or the LAR on the individual's behalf) wants to return to the state school or state center regardless of level of need or least restrictive environment. The department responds that the Medicaid freedom of choice provision does apply, as do other state and federal laws and regulations governing, among other issues, the availability of a facility slot appropriate to the individual's level of need and least restrictive environment. In addition, if the individual is an adult and has a guardian, admission would have to be by court commitment and, therefore, meet the commitment provisions in the Texas Health and Safety Code, §593.052.

Four commenters requested that references to the termination of services by an MRA in §402.314(c)(2) be deleted because neither the department or individual MRAs are statutorily permitted to terminate services. The department responds that the notification and appeal process described in the rule (§401.464) referenced in this paragraph is required by the Texas Health and Safety Code, §534.0675, for consumer use in instances of "denial, involuntary reduction, or termination of services"

by a local mental health or mental retardation authority. The inference from this language is that an MRA can terminate community-based services. The commenters further stated that when amendments to §401.464 were proposed last year, the commenters suggested that system-wide criteria for terminating community-based services be established by the department. Quoting from the department's written response when the amendments to §401.464 were adopted (the department noted that system-wide criteria had not yet been developed but would be given consideration when the subchapter is reformulated and proposed for review and comment later this year), the commenters contend that the department should not raise the issue in this subchapter until the system-wide criteria for terminating services have been developed. The department responds that the authorizing statute requires the notification and appeal process to be established in department rules, and that lack of system-wide criteria for the termination of community-based services does not preclude an MRA from having its own local criteria as long as the local criteria do not conflict with existing state or federal laws and regulations.

Concerning the disclosure of confidential information to MRAs about individuals from a MRA's local service area as described in §402.315(a), four commenters stated that the information could be released to an MRA only if the individual or LAR had accepted an IDT recommendation that the individual move to the community and had signed the consent form to release the information. The department responds that information concerning residents of state schools and state centers is available to MRAs through CARE for purposes of service planning and continuity of care. The department further notes that §533.009 of the Texas Health and Safety Code permits the department and MRAs to exchange information concerning individuals without obtaining consent from the individual or LAR. The subsection has been revised to direct MRAs to access CARE for information concerning individuals and their community living status, as well as listings by county of Home and Community-based Program (HCS) program providers. Comparable listings of ICF/MR program providers currently are not available through CARE but can be requested from the Office of Medicaid Administration.

One commenter requested that "level of need" information be added in §402.315(a)(1). The department responds that the subsection has been extensively revised, rendering the suggestion moot. However, level of care information is included on the appropriate CARE screens.

Concerning §402.315(d), four commenters stated that MRA staff should not attend IDT meetings unless the individual or LAR agrees. The department responds that IDT membership is determined jointly by the individual, LAR, and the facility, and that the interpretative guidelines for the relevant federal ICF/MR regulation at §483.440(c)(2) require the state school to "pursue aggressively" involvement by all relevant participants. The department considers the individual's designated MRA to be a relevant participant when movement issues will be discussed.

Another commenter suggested that language be added to the subsection clarifying that MRAs will be invited to attend only those IDT meetings at which movement issues will be discussed. The department agrees and has revised the subsection accordingly.

Four commenters questioned the deletion of language which appeared in an early draft of §402.315 stating that "desires and aspirations of the individual shall be the primary consideration when the IDT makes recommendations concerning movement." The commenters requested the reinstatement of the language with the addition of a reference to the LAR. The department responds that similar language already appears in §402.314(b)(1) and reads "The choices, preferences, expectations, likes, and dislikes of the individual and LAR are the dominant force behind all recommendations." The language represents a statement of philosophy and principles, and is more appropriate in that section rather than the section on general provisions.

One commenter stated that the second sentence of §402.315(g) sounds as if the facility will coerce families into taking their minor children home instead of honoring the family's choice to place the child in the state facility. The department responds that while both board policy and state law stress a commitment to providing supports and services which will assist a family in keeping a child with disabilities at home, the department recognizes that institutional services of a state school or state center are a legitimate choice for some families on behalf of their child. The language is revised accordingly.

Two commenters recommended that any provisions which apply only to a certain age group must be deleted, and specifically cited the second sentence of §402.315(g) and (l). The department disagrees, noting that children have special needs, and declines to delete the language as requested.

Four commenters requested that all references to "discharge" be changed to "transfer" because they believe the Persons with Mental Retardation Act (PMRA) does not support the use of discharge for the purposes described in the rule. The department disagrees with the commenters' assessment and responds that §594.011 of the PMRA does permit the "transfer, furlough of the client to an alternative placement, or discharge" of the individual if the facility no longer is appropriate to the individual's needs or if the individual can be "better treated and habilitated" in another setting and an appropriate setting is available. The department, therefore, declines to make the requested changes. The commenters also questioned the absence from proposed §402.315(j) of a parenthetical phrase which appeared in an early draft and stated that although discharged from the facility, an individual would not be discharged from department services. The commenters requested the restoration of the phrase to emphasize that the individual will continue to receive department services after moving from the facility. The department responds that while the law does address the discharge of an individual from a facility, it is silent on the issue of "discharge from department services" which is why the parenthetical phrase from the earlier draft was deleted.

A commenter stated that having the IDT both recommend community living and determine the appropriateness of the community setting for an individual who is unable to provide legally adequate consent and is without a guardian is an inherent conflict of interest and reflects a lack of safeguards. The commenter recommended that a process similar to the surrogate decision-maker model used in community-based ICFs/MR be developed to protect the rights and best interests of individuals through identification of a decision maker who has

the right to reject the IDT recommendation. The department responds that a commitment under the PMRA empowers the superintendent to make care and treatment decisions – including transfer, furlough, or discharge of the individual to alternative settings – on behalf of the individual who can not provide legally adequate consent and does not have an LAR.

A commenter noted that the department's current practice of placing individuals on extended furlough rather than discharging them from the facility provides a virtual "safety net" and significant reassurance to individuals and families who might not otherwise risk the move. The commenter questioned whether the furlough option would continue to be offered, noting that while few former residents return to the state school, the furlough option has permitted them to avoid the admission process and, in most instances, the rigors of obtaining a court commitment. The department replies that the decision to continue furlough status will be made on an individual basis. An individual or LAR may appeal the discharge as provided in the Texas Health and Safety Code, Chapter 594.

Four commenters supported the provisions in §402.315(l) concerning permanency planning for children, reunification of children with their families whenever possible, adoption or foster care for children to develop nurturing relationships, and review every three months for community living for children who must reside in state facilities. The commenters noted that a stable caregiver relationship, whether with the biological, adoptive, or foster family, allows a child to develop appropriate coping skills, reduces behavioral difficulties, and will help prevent later dual diagnoses. One of the four noted that the provisions of this subsection were consistent with the board's policy statement of March 25, 1994, that "children have a human right, regardless of the severity of their disabilities, to grow up in families." The department acknowledges the support.

Four other commenters stated that the provisions of §402.315(l) directly contradict the Medicaid freedom of choice guarantees that individuals and LARs have the right to choose to remain in a state school or state center. They also stated that the parents, not the department, are best suited to determine what is in the best interests of their child and whether longterm residence in a facility is an appropriate option. The commenters expressed deep concern with provisions suggesting "voluntary open adoption" and longterm foster care supplemented by securing an advocate or guardian. The department responds that the §402.315(l) has been rewritten to emphasize the rights of parents to choose the service settings they believe best serve the needs of their children.

Another commenter questioned why the department states in §402.315(l)(5) that longterm residence in a state facility is inappropriate for children, but apparently considers it an appropriate option for adults who have the ability to provide legally adequate consent or who have an LAR. The commenter considered this to be an inconsistency based solely on the age of the individual. The department responds that the perceived inconsistency arises from the fact that children have special needs and childhood is a crucial time for maximum development of abilities, skills, and attachments to other people. Therefore, the department declines to revise the subchapter based on the comment.

A commenter recommended that language regarding obtaining consent to the release of information in §402.316(e)(2) and §402.317(d)(2) be amended to specify that the consents are for the release of information to selected providers and that the signed consent forms are to accompany the profiles when sent to the designated MRA. The department agrees and has amended the language accordingly.

Three commenters stated that §402.316(f) and §402.317(f) do not mention having a facility staff person, IDT member, or the LAR accompany the individual on preselection visits, or before or after the individual's visit. They recommended that at least one member of the IDT who is familiar with the individual visit the intended community living arrangement before making a final decision. Otherwise the IDT will be selecting a provider without the input of someone who both knows the individual and has at least a cursory first hand knowledge of the community setting. The commenters noted that while the regional monitor visits the setting after the provider has been selected, that person has no first hand knowledge of the individual. The department responds that if the circumstances dictate, the IDT may choose to have a facility staff person visit the community setting prior to the final selection of a provider.

One commenter recommended that the words "that setting" in the second sentence of §402.316(h) be replaced with "desired services." The department agrees and has changed the language as requested.

One commenter expressed support for the requirement in §402.316(i) and §402.317(i) that moves to the community by school eligible individuals be coordinated through the local Community Resource Coordination Groups. The department acknowledges the support. Another commenter requested that in those same subsections, the word "reintegration" be replaced by "integration," noting that reintegration assumes that school-eligible individuals previously had been integrated into the community and many times this is not the situation. The department agrees and has changed the language as requested.

One commenter requested the addition of the statutory or other legal authority that authorizes the IDT to make decisions about movement to the community for individuals who are unable to provide legally adequate consent. The commenter also asked who at the facility is empowered to sign consent forms permitting the release of information to providers and who may consent to discharge from the facility when the individual is unable to provide consent and there is no LAR. The department responds that the Texas Health and Safety Code, §594.011, permits the "transfer, furlough of the client to an alternative placement, or discharge" of the individual if the facility no longer is appropriate to the individual's needs or if the individual can be "better treated and habilitated" in another setting and an appropriate setting is available. In addition a commitment under the PMRA empowers the superintendent to make care and treatment decisions (§592.054) – including transfer, furlough, or discharge of the individual to alternative settings under §594.011 – on behalf of the individual who has been committed to the department under the PMRA.

Concerning §402.317(d), a commenter requested the addition of a requirement that providers must understand the statutory

requirements which permit the provision of emergency medical care for individual unable to give legally adequate consent and, if applicable, the provisions of the surrogate decisionmaking program. The department responds that such a requirement is already a part of the Medicaid provider contract and declines to add the language as requested.

Two commenters noted that the IDT in §402.317(d)(1) chooses, on behalf of the individual who is unable to provide consent and has no LAR, those providers to whom the individual's profile is sent, and questioned whether this constitutes a restraint of trade or a freedom of choice issue. The department responds that it is neither; the IDT is performing the function that the individual with the ability to consent or an LAR would in selecting which providers are to receive the profile. Subparagraphs (A)-(C) specify the criteria on which the selection of providers must be made, just as a individual with the ability to consent or the LAR would have criteria. The selection is made from the list of all available providers in the designated MRA's local service area.

A commenter suggested that §402.317(d)(3) be reworded to indicate that the MRA will forward the profile to the selected providers only after the IDT has obtained a signed consent forms. The department declines to revise the language as requested, noting that revisions made in §402.317(d)(2) adequately address the commenter's concerns.

A commenter suggested that having the MRA verify that the provider has adequate life safety measures in place is duplicative of the regional monitor's responsibilities. The department responds that the regional monitor's role is more oversight than verification.

A commenter suggested that the regional monitor be required to visit the provider setting "as needed," explaining that many times the regional monitor may have just visited the site within the previous two weeks. The department agrees and has added "as needed" in §402.318(a).

A commenter asked who was responsible for informing the individual and LAR of the right to proceed with a movement to the community even if the regional monitor has not approved that arrangement. The department responds that the IDT is responsible.

Concerning §402.318(g)(3), a commenter requested greater specificity as to when and how the transfer of trust fund money will occur. The department disagrees that additional specificity is needed and responds that the requirement for all financial arrangements and agreements to be addressed before the individual moves will cover the commenters concerns. If a provider has special concerns about the trust fund transfer, the issue should be addressed when the provider meets with the IDT to review and approve the community living/discharge plan.

Four commenters requested that copies of the records listed in §402.318(i) be offered to the individual or LAR before or at the time of the move. The department agrees and has revised the language as suggested.

A commenter requested that the last sentence in §402.318(j) be revised to require the facility physician to communicate directly with the community physician or healthcare provider "when

appropriate" rather than "whenever possible." The department agrees and has revised the language as requested.

Four commenters questioned why some continuity of care provisions which appeared in an earlier draft of §402.321 do not appear in the proposal including requirements that: the MRA assign a case manager or obtain a waiver; monitoring activities be documented by the MRA in progress notes and pertinent information shared with the provider and the MRA staff administratively responsible for community living activities; and significant, unresolved problems become part of the MRA's system for problem analysis and monitoring. The department responds that the MRA's assignment of case management services is based on a screening and assessment process contained in the case management operating instruction. Documentation of monitoring activities is addressed in subsection (a)(5)(A) and (6)(D). A problem resolution process is partially addressed in proposed subsection (b) – relettered as subsection (e) upon adoption – and is further addressed with the addition of new subsections (d) and (f). The department anticipates that outcomes around the movement of individuals from facilities will be evaluated as part of the Quality Assurance and Improvement System (QAIS) assessments.

A commenter suggested that a memorandum of agreement between MRAs may still be needed to address not only changes of designated MRA in CARE but also the need for service coordination or case management services as described in the community living/discharge plan. The department responds that if an arrangement between MRAs is necessary to provide for service coordination or case management services, the specifics of the arrangement should be detailed in the community living/discharge plan.

Two commenters asked at what point is a discharge from the facility allowable and what is the expectation for continued monitoring. The department responds that §402.315(j) and §402.321(a)(5) provide that discharge from the facility may occur when the outcomes and criteria established in the community living/discharge plan have been met. The discharge must be consistent with provisions of the Texas Health and Safety Code, Chapter 594, which requires at least 30 days notice to the individual or LAR of the proposed discharge with an advisement of the right to request an administrative hearing. The department has no expectation of continued monitoring of the individual and the community living arrangement beyond the monitoring requirements negotiated and agreed to by the individual, LAR, facility, MRA, regional monitor, and provider in the community living discharge plan.

A commenter questioned whether community centers would be permitted to discharge the individual from services just as the department will be discharging from the facility. The department responds that MRAs may establish local criteria for discharge from the MRAs services as long as the criteria do not contradict state law or department rules. The individual or LAR would have the right to appeal the discharge under §401.464 of this title (relating to Notification and Appeals Process) of Chapter 401, Subchapter G of this title (relating to Community Mental Health and Mental Retardation Centers.)

Four commenters stated that §402.321(a)(1) should include the names of the LAR and/or correspondent with address, home

and work phone numbers and the name and numbers of a back-up person for emergency notification. The department declines to add the requested language, noting that information is covered under "essential information" in the profile. The commenters also requested the inclusion in both the policy and sample format of appropriate notification codes, and specified that these should be same codes used by facility. The department declines to make the suggested changes and responds that "notification codes" are specific to state facilities and that the requirements for notification of an LAR should be specified in the plan.

A commenter questioned why information concerning psychiatric needs was limited only to individuals moving from a state hospital. The department has removed the limitation from §402.321(a)(1)(C).

A commenter stated that the community living/discharge plan was very clinical and suggested that the information be presented in a way that more clearly supports a "person centered" approach. The commenter further noted that the "statement of individual's choices and needs" under §402.321(a)(4)(A) should be recognized as more than just a statement in this section but the basis for all other assessments and information that needs to be considered and shared in making decisions about services. The department agrees and has modified the sample plan format accordingly.

A commenter suggested that having three people – the regional monitor, an MRA representative, and someone from the facility – conduct separate monitoring visits was a duplication of effort, unnecessarily intrusive, and sets the stage for conflict. The department has revised the language to clarify that only the regional monitor and MRA representative are expected to conduct monitoring. The details of who, when, and how often are expected to be negotiated by the various parties including the individual, LAR, facility, MRA, regional monitor, and provider.

A commenter stated that provisions need to be included in §402.321 for those rare cases when the immediate removal of the individual from the community living/discharge plan is necessary. The department responds that the options need to be anticipated by the provider and MRA based on available resources (e.g. crisis stabilization units, private psychiatric facilities, and crisis respite) in the provider's area and included in the community living/discharge plan.

These sections are adopted the Texas Health and Safety Code, §532.015, which provides the Texas Mental Health and Mental Retardation Board with broad rulemaking authority.

§402.311. Purpose.

The purpose of this subchapter is to:

- (1) establish criteria and procedures for:

- (A) mental retardation authorities (MRAs) with respect to the individuals in facilities of the Texas Department of Mental Health and Mental Retardation who are recommended for community living and the role of the MRA staff to familiarize individuals and legally authorized representatives (LARs) with community resources for which the individual may be eligible;

- (B) MRAs to develop and/or coordinate services for individuals residing at facilities who are or may be recommended for community living;

- (C) joint discharge planning between facilities and MRAs consistent with the Texas Health and Safety Code, §534.0535; and

- (D) monitoring of services provided to individuals with mental retardation who have moved into the community from department facilities consistent with the Texas Health and Safety Code, §591.011;

- (2) assure individuals and LARs are aware of their freedom to choose from among a range of available community-based services; and

- (3) assure individuals and LARs that individuals residing in facilities may continue to reside in that setting.

§402.312. Application.

This subchapter applies to:

- (1) facilities providing residential services to individuals with mental retardation;

- (2) mental retardation authorities (MRAs); and

- (3) providers.

§402.313. Definitions.

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise:

Actively involved – Significant and ongoing involvement with the individual which the IDT deems to be supportive based on the following:

- (A) observed interactions of the person with the individual;

- (B) advocacy for the individual;

- (C) knowledge of and sensitivity to the individual's preferences, values and beliefs; and

- (D) availability to the individual for assistance or support when needed.

CARE – The department's Client Assignment and Registration System, an on-line data entry system developed to provide demographic and other data about individuals served by the department.

Commissioner – The commissioner of the department.

Child – An individual under the age of 18.

Community living/discharge plan – A written agreement developed by an individual's IDT with active participation by the individual and LAR which details the responsibilities of all parties signing the plan during and after the individual's move from a facility into a community living arrangement. See §402.321 of this title (relating to Community Living/Discharge Plan). Copies of a sample format which can be used as is or modified as necessary are available by contacting Office of Policy Development, Texas Department of Mental Health and Mental Retardation, P.O. Box 12668, Austin, Texas 78711.

Community living profile – The first section of the community living/discharge plan which is completed by the individual's IDT with the active participation of the individual and LAR when a decision is made to seek a community living arrangement. The profile provides descriptive information about the individual as well as information concerning the individual's and LAR's preferences and desires and the IDT's recommendations for service and support needs which must be considered by the MRA when researching community living options. Copies of a sample format which can be used as is or modified as necessary are available by contacting Office of Policy Development, Texas Department of Mental Health and Mental Retardation, P.O. Box 12668, Austin, Texas 78711.

Community Resource Coordination Groups – Local interagency groups composed of public and private agencies that develop service plans for children and adolescents whose needs can be met only through interagency coordination and cooperation. The role and responsibilities of the involved agencies, including MRAs, school districts, and providers, are described in §401.49 of this title (relating to Memorandum of Understanding (MOU) on Coordinated Services to Children and Youths) which adopts by reference a MOU between nine state agencies.

Consensus – A negotiated agreement that all parties can and will support in implementation. The negotiation process involves the open discussion of ideas with all parties encouraged to express opinions.

Continuity of services activities – The activities designed to ensure coordination of services for an individual which include, but are not limited to:

- (A) development of the community living/discharge plan which addresses the choices and needs of the individual and the choices of the LAR in the best interests and in behalf of the individual;
- (B) joint community living planning;
- (C) exchange of information pertinent to service needs/training/support;
- (D) implementation of services which address the choices and needs of the individual and the choices of the LAR; and
- (E) visits to the individual following the move to the community.

Department – The Texas Department of Mental Health and Mental Retardation.

Designated MRA – The MRA assigned to the individual in CARE.

Discharge – The release by the department from the custody and care of a facility of an individual voluntarily admitted or committed by court order to a facility for residential mental retardation services. The discharge of an individual committed by court order terminates the court order.

Facility – All state schools and those state centers providing residential mental retardation services.

Head of the facility – The superintendent of a state school or the director of a state center.

Individual – A person with mental retardation who is receiving residential services in a facility, or a person who has moved from a facility to a community living arrangement.

Interdisciplinary team (IDT) – Mental retardation professionals and paraprofessionals and other concerned persons, as appropriate, who assess an individual's treatment, training, and habilitation needs and make recommendations for services, including recommendations of whether the individual is best served in a facility or in a community setting. Team membership is determined jointly by the individual, LAR, and the head of the facility and typically includes some or all of the following:

- (A) the individual;
- (B) the legally authorized representative (LAR);
- (C) family members or friends who are actively involved in the individual's life (typically only when the individual does not have an LAR);
- (D) persons specified by the facility who are professionally qualified and/or certified or licensed with special training and experience in the diagnosis, management, needs, and treatment of individuals with mental retardation;
- (E) persons who are directly involved in the delivery of mental retardation services to the individual;
- (F) member(s) of the public responsibility committee (PRC), if requested by an individual with the ability to provide legally adequate consent, a LAR, or the PRC (when the individual does not have the ability to provide legally adequate consent and does not have an LAR); and
- (G) representative of the appropriate school district if the individual is school eligible.

Legally adequate consent – A term consistent with provisions of the Texas Health and Safety Code, Title 7, §591.006, which states that consent obtained from an individual with mental retardation is legally adequate when each of the following conditions has been met:

- (A) legal status: The individual giving the consent is of the minimum legal age and has not had a guardian appointed to manage personal affairs by an appropriate court of law;
- (B) comprehension of information: The individual giving the consent has been informed of and comprehends the nature, purpose, consequences, risks, and benefits of and alternatives to the procedure, and the fact that withholding or withdrawal of consent shall not prejudice the future provision of care and services to the individual with mental retardation; and
- (C) voluntariness: The consent has been given voluntarily and free from coercion and undue influence.

LAR (legally authorized representative) – The parent or managing conservator of an individual who is a minor or the guardian of an individual who is an adult. The guardianship orders issued by the court must implicitly or explicitly authorize the guardian to make decisions concerning the individual's living arrangements.

Local service area – A geographic area composed of one or more Texas counties delimiting the population which may receive services from a local MRA.

MRA (mental retardation authority) – As defined in the Texas Health and Safety Code (THSC), §531.002, an entity to which the Texas Mental Health and Mental Retardation Board delegates its authority and responsibility within a specified region for planning, policy development, coordination, and resource development and allocation

and for supervising and ensuring the provision of mental retardation services to persons with mental retardation in one or more local service areas. The commissioner designates the MRA for a local service area (See THSC §533.035).

Permanency planning – A philosophy and planning process that focuses on the outcome of family support by facilitating a permanent living arrangement with the primary feature of an enduring and nurturing parental relationship.

Provider – A public or private entity which delivers community-based residential services for persons with mental retardation, including, but not limited to, an intermediate care facility for individuals with mental retardation (ICF/MR), a nursing facility, and a facility certified by the department as described in Chapter 401, Subchapter I of this title (relating to Certification of Community Residential Programs.) The term also includes public or private entities which provide home and community-based services. These entities must be properly licensed and certified under applicable state or federal law, rule, or regulation and, if participating in the department's Home and Community-based Services (HCS) program, have a current contract with the department.

Regional monitor – An employee of the department's Central Office who:

(A) represents the department, providing oversight of a local authority's performance;

(B) is responsible for approving living situations for individuals moving to community programs; and

(C) serves as a resource to MRAs and providers.

Related services – Orientation and mobility training and interpreting services for public school students who are deaf, as defined in rules of the Texas Education Agency (see 19 TAC §89.1060 (relating to Definitions of Certain Related Services)).

School eligible – A term describing those individuals between the ages of three and 22 who are eligible for public education services.

Service delivery system – All facility and community-based supports and services operated or contracted for by the department.

Supports and services (mental retardation services) – Programs and assistance for persons with mental retardation that may include a determination of mental retardation, interdisciplinary team recommendations, education, special training, supervision, care, treatment, rehabilitation, residential care, and counseling, but does not include those services or programs that have been explicitly delegated by law to other state agencies.

§402.314. Philosophy and Principles.

(a) Each individual receiving supports and services through the department's service delivery system is entitled to choice and decision-making authority. When the individual has a LAR, the LAR makes the choices and decisions on the behalf of and in the best interests of the individual. To make choice possible and relevant, the individual is entitled to supports, experiences, and options; the individual (or the LAR on the individual's behalf) may elect not to take advantage of the offered supports, experiences, and options. If an individual cannot communicate preferences related to activities and expectations or does not choose to communicate and does not have a LAR, the questions are asked of those persons who are actively involved with the individual.

(b) The following principles support choice and decision-making by an individual or LAR. Each facility, MRA, and provider is required to put these principles into practice in carrying out continuity of services activities.

(1) The choices, preferences, expectations, likes, and dislikes of the individual and LAR are the dominant force behind all recommendations.

(2) The individual with the ability to provide legally adequate consent, as defined in §402.313 of this title (relating to Definitions), or the LAR is entitled to choose from among those providers able to provide desired supports and services to the individual.

(3) Individuals making choices are entitled to training, counseling, and opportunities to experience and to try the options involved in making choices.

(4) The same range of options for residential and support services that are available to all people are made available for individuals receiving services through the department's service delivery system.

(5) Visits and interviews with the individual, the LAR, and actively involved persons (if there is no LAR) are the primary basis for collecting data and information to determine if the individual's choices and needs or the LAR's choices for the individual are being met across time and services.

(c) If the family of a child with mental retardation chooses to maintain the child in the family home, the necessary services and supports which will enable that child to remain at home will be provided or procured by the department as directed by the Texas Mental Health and Mental Retardation Board in a policy statement concerning "Family Supportive Services For Children and Youth" adopted by the board on March 25, 1994. (See also Acts 1995, 74th Legislature, Chapter 949, §1, concerning longterm care vision.)

(1) The community living/discharge plan should first attempt to plan, provide, and coordinate services in such a manner that the integrity of the family unit may be maintained.

(2) If a child cannot be maintained in the home and the family chooses for the child to remain in the facility, the IDT and MRA will give priority attention to the provision and coordination of those services which will facilitate reunification of the child with the family.

(3) For some children residing in a facility, the most appropriate permanency planning option may be community foster care while the IDT and MRA seek to coordinate services which will facilitate reunification of the child with the family. For other children the permanency planning path may include such alternatives as longterm foster care, supplemented by securing an advocate or a guardian.

(d) If needed and requested by the individual or LAR or – when the individual is unable to give legally adequate consent and has no LAR – by the provider, the MRA will work cooperatively with individual, LAR, and provider to find alternative services, particularly in the event that the individual will be discharged by the provider. Alternative services could include the individual being admitted to a facility if an appropriate vacancy is available.

(1) The department will provide consultation and support to the MRA.

(2) When a request by an individual or LAR for community-based supports or services is denied by an MRA or when community-based supports and services provided by an MRA are terminated by the MRA, the MRA shall follow procedures outlined in §401.464 (relating to Notification and Appeals Process) of Chapter 401, Subchapter G of this title (relating to Community Mental Health and Mental Retardation Centers.)

§402.315. General Provisions.

(a) MRAs are directed to access CARE for information on those individuals residing in facilities who are from the MRA's local service area and have been recommended for community living. A list of providers by county in the Home and Community-based Services (HCS) program also is provided on CARE. A similar list of providers in the Intermediate Care Facility for the Mentally Retarded (ICF/MR) program is available by contacting the Office of Medicaid Administration in the department's Central Office.

(b) An individual and the LAR always have the right to attend IDT meetings and to participate fully in discussions.

(1) The facility or MRA will ensure that both the individual and the LAR receive adequate notice of IDT meetings concerning the individual.

(2) When the individual is school eligible, at least 30 days notice of IDT meetings will be given to the individual, the LAR, and the representative from the appropriate school district. The school district representative will be invited to IDT meetings at which movement by the school eligible individual to the community will be discussed.

(c) If the individual with the ability to provide legally adequate consent wishes to include one or more actively involved family members or other actively involved persons in IDT meetings, staff shall encourage the attendance and participation by those persons. An LAR may choose to include members of the individual's family or other actively involved persons. Every reasonable attempt shall be made to schedule IDT meetings at a time that is convenient for family members or actively persons invited by the individual or LAR.

(d) A staff person from the individual's designated MRA shall be invited to attend those IDT meetings at which movement will be discussed. If the MRA staff person is unable to attend the meeting, the MRA shall ensure that the facility has the information needed to assist the IDT in making a recommendation regarding community living.

(e) Communication devices and techniques (including the use of sign language) will be utilized, as appropriate, to facilitate the involvement of the individual and the LAR in the IDT process.

(f) The individual with the ability to provide legally adequate consent has the right to exclude a parent, family member, or other actively involved persons from participation in meetings of the IDT at which movement by the individual to the community is to be discussed.

(g) An individual with the ability to provide legally adequate consent or an LAR has the right to reject an IDT recommendation that the individual move to the community and elect for the individual to remain a resident of a facility. If the individual is a child and

the parent or managing conservator chooses to keep the child in the facility, the IDT will focus on increasing involvement with the child's family, providing information regarding the importance of attachment in child development, and planning for the child's return to the family home if desired by the family.

(h) If an individual does not have an LAR and the IDT determines that the individual does not have the ability to provide legally adequate consent, the IDT will work with the designated MRA to find an community living arrangement if the individual is recommended for movement to the community. If no appropriate provider is located in the local service area of the MRA, the designated MRA will be responsible for contacting other MRAs in whose local service areas the individual might appropriately be served.

(i) The MRA and the facility shall have procedures in place which ensure that necessary service coordination between the MRA, facility, and involved community resources (both public and private) occurs to assure that individuals residing in the facility and their LARs are able to exercise choice in selecting a community living arrangement. The MRA's procedures will involve maintaining a file of current information furnished to the MRA by the providers in that MRA's local service area which the MRA will share with the individual, the LAR, and the facility.

(j) An individual leaving a facility to receive supports and services in the community will be discharged from the facility as described in the community living/discharge plan. If the individual was committed under the Texas Health and Safety Code, Chapter 593, Subchapter C, the committing court will be notified of the discharge from the facility as required in Texas Health and Safety Code, §594.018. The individual or LAR may request an administrative hearing to contest the discharge as described in Chapter 403, Subchapter N of this title (relating to Administrative Hearings Arising Under the Persons with Mental Retardation Act).

(k) Providers who admit an individual moving from a facility under the provisions of this subchapter must permit the staff or agents of the department access to those individuals and to the records of those individuals as required by Texas Health and Safety Code, §591.011(e).

(l) When the individual is a child, the IDT recommendation regarding living arrangements will be based on the individual's permanency planning needs for supports and services which will enable the child to live with family if the LAR chooses to move the child back into the family home. If parental rights have been terminated, the IDT recommendation will be based on the permanency planning needs for support and services which will enable the child to live in a family environment in the community. The IDT's goal is to secure a consistent, nurturing environment that provides an enduring, positive adult relationship with a specific person who will be an advocate for that child.

(1) If reunification of the child with the natural family is not possible, the feasibility of community foster care or voluntary open adoption should be explored as possible support options which the family can choose in the best interest of the child. If this option is chosen by the family, the IDT will refer the family to an appropriate child placement agency and notify the designated MRA of the referral.

(2) The frequency, timing, and scope of IDT meetings will be individualized with the involvement and agreement of the

parent to ensure that a child residing in a facility is reviewed by the IDT as often as necessary to chart the child's development. The IDT will designate a facility contact person with whom the designated MRA will communicate at least quarterly to review new and planned community living options which might be appropriate for the child. This information will be presented to the child's parent in a manner and frequency preferred by the parent.

(m) If circumstances preclude attendance in person at an IDT meeting by any of the persons invited to attend, that person or persons may participate via telephone.

§402.316. Individual with Ability to Provide Legally Adequate Consent or With a Legally Authorized Representative (LAR).

(a) When an individual with the ability to provide legally adequate consent or an LAR agrees with and accepts an IDT recommendation that the individual move from the facility and live in the community, the IDT will inform the individual's designated MRA of the decision to move.

(b) During an IDT meeting, facility staff and staff from the designated MRA will describe the different types of community living arrangements and answer any questions the individual or LAR might have. The individual or LAR will be asked to identify the geographic location(s) within the state where the individual wants to live or the LAR wants the individual to live. The locations can be outside the local service area of the individual's designated MRA.

(c) Once the preferred geographic location(s) has been identified, the designated MRA is responsible for coordinating further movement activities, including working with the MRA(s) in those locations.

(1) A representative from each involved MRA will be invited to attend a meeting of the IDT to discuss the preferences and desires of the individual or LAR regarding a community living arrangement, as well as the service and support needs identified by the IDT, the individual, and the LAR.

(A) During the meeting, facility staff and the MRA representative(s) also will describe the different types of community living arrangements which are available and answer questions asked by individual and the LAR.

(B) The preferences and desires of the individual and the service and support needs will be documented in the written report of the IDT meeting.

(2) The preferred geographic location(s), the preferences and desires of the individual or LAR, and the service and support needs will be documented in the written report of the IDT meeting.

(d) At this or a later meeting of the IDT, facility staff will begin the process of completing the community living profile.

(1) The community living profile will include:

(A) the preferences and desires of the individual and the LAR (e.g., type of setting, vocational or habilitation services, etc.) and the service and support needs, as described in subsection (c) of this section;

(B) the individual's medical and behavioral needs and any other special needs, which will be communicated to community-based service providers; and

(C) the date of the determination of mental retardation conducted as described in Chapter 405, Subchapter D of this title (relating to Determination of Mental Retardation and Appropriateness for Admission to Mental Retardation Services).

(2) The completed profile will be forwarded to the designated MRA with copies being sent to the individual and LAR within 14 calendar days of the IDT meeting at which it was initiated. If the preferred geographic location(s) of the individual or LAR is in the local service area of another MRA(s), the designated MRA will provide copies of the profile to the other MRA(s).

(e) A representative of the designated MRA, with representatives of other MRAs, as appropriate, will present the individual, the LAR, and the IDT with a list of the providers in the preferred geographic locations. Current information furnished to each MRA by the providers in that MRA's local service area will be shared with the individual, the LAR, and the IDT.

(1) The individual or LAR will select providers to which the community living profile described in subsection (d) of this section is to be sent. When more than one MRA is involved, the designated MRA will coordinate with the other MRAs to ensure that profiles are sent to all selected providers.

(2) The IDT will ensure that the appropriate consents for release of information to the selected providers to which the community living profile will be sent are obtained as described in Chapter 403, Subchapter K of this title (relating to Client Identifying Information) and that copies of the signed consent form are sent with the profile to the designated MRA.

(3) Within 14 calendar days of receiving the completed community living profile, the MRA will send the profile to the providers selected by the individual or the LAR.

(f) The designated MRA shall coordinate with the facility and other MRAs, as appropriate, to assist the individual or LAR in making arrangements for preselection visits to proposed providers. If overnight visits are utilized, the facility first shall assure that staff at the proposed provider receive the following prior to or at the time of the preselection visit:

(1) identifying data including legal status and determined disability(ies);

(2) pertinent medical/medication information;

(3) behavioral data; and

(4) other pertinent treatment information.

(g) The facility will send an adequate medication supply, clothing, personal items, and adaptive equipment with the individual at the time of the overnight visit.

(h) The individual or LAR will inform a designated facility staff person when a provider has been selected. The individual or LAR may choose a provider with an immediate opening or, if there is no immediate opening, may ask to be placed on a waiting list for the desired services. The IDT will meet to complete the community living/discharge plan.

(i) If the individual is a child, the community living/discharge plan will address plans for integration into the community. Planning for the move should be coordinated through the local Community Resource Coordination Group.

(j) The individual or LAR may request that the designated MRA facilitate the development of a specific community living arrangement if there is no arrangement in existence which meet the individual's service and support needs as described in the community living profile and the preferences and desires of the individual or LAR.

§402.317. Individual Who Does Not Have the Ability to Give Legally Adequate Consent and Who Does Not Have a Legally Authorized Representative (LAR).

(a) When the IDT is considering whether to recommend that an individual move to the community consistent with the Texas Health and Safety Code, §594.011, issues which could constitute barriers to a successful transition must be evaluated and possible responses recommended. The IDT's evaluation and recommendations regarding such issues will be documented in the IDT report. Although not an exhaustive list, the following issues could prevent the individual from successfully adapting to community living:

(1) individual's inability to provide legally adequate consent; and

(2) lack of effective community supports and services to address behavioral or medical concerns.

(b) The IDT will investigate guardianship options for individuals who are recommended for community living and document the findings, including additional activities necessary to secure a guardian, in the community living/discharge plan prior to the individual's move.

(c) If there is no consensus by the IDT concerning whether the individual should be recommended for community living or other issues related to the individual's movement as described in this section and in §402.318 of this title (relating to Arrangements for Individual's Move into the Community), the IDT will notify the head of the facility within one working day of the meeting. The head of the facility will name a review team, consistent with the facility's written policies and procedures, to evaluate the situation and make a consensus recommendation to the head of the facility within 21 calendar days. The decision by the head of the facility will be final.

(d) When the IDT recommends that an individual move to the community and the individual has been determined by the IDT not to have the ability to give legally adequate consent and there is no LAR, the IDT will inform the individual's designated MRA of the recommendation.

(e) A representative from the designated MRA will meet with the individual, any persons actively involved with the individual, and the IDT to discuss the preferences and desires of the individual regarding a community living arrangement, as well as the service and support needs identified by the IDT and the individual.

(1) During the meeting, facility staff and the MRA representative also will describe the different types of community living arrangements which are available and answer any questions asked by individual and/or persons actively involved with the individual.

(2) The preferences and desires of the individual and the service and support needs will be documented in the written report of the IDT meeting.

(f) At the meeting described in subsection (e) of this section or a later meeting of the IDT, facility staff will begin the process of completing the community living profile.

(1) The community living profile will include:

(A) the preferences and desires of the individual (e.g., type of setting, vocational or habilitation services, etc.) and the service and support needs, as described in subsection (e) of this section;

(B) the individual's medical and behavioral needs and any other special needs, which will be communicated to community-based service providers; and

(C) the date of the determination of mental retardation conducted as described in Chapter 405, Subchapter D of this title (relating to Determination of Mental Retardation and Appropriateness for Admission to Mental Retardation Services).

(2) The completed profile will be forwarded to the designated MRA with copies to the individual and any actively involved persons within 14 calendar days of the IDT meeting at which it was initiated.

(g) During an IDT meeting, a representative of the designated MRA will present a list of the providers in that MRA's local service area. Current information furnished to the MRA by the providers in that MRA's local service area will be shared with the individual, any actively involved persons, and the facility IDT.

(1) The IDT, with input from the designated MRA, will select those providers within the MRA's local service area to which the community living profile is to be sent. The providers selected must:

(A) consider any preferences and desires which may have been expressed by the individual or any persons actively involved with the individual;

(B) meet the needs of the individual, as determined by the IDT, including:

(i) medical and health;

(ii) emotional and behavioral;

(iii) transportation;

(iv) employment, vocational, and educational; and

(C) complement the individual's existing social relationships and support network.

(2) The IDT will ensure that the appropriate consents for release of information to the selected providers to which the community living profile will be sent are obtained as described in Chapter 403, Subchapter K of this title (relating to Client Identifying Information) and that copies of the signed consent form are sent with the profile to the designated MRA.

(3) Within 14 calendar days of receiving the completed community living profile, the MRA will forward the profile to the providers selected by the IDT as described in paragraph (1) of this subsection.

(h) If the IDT and the designated MRA determine that no providers within the MRA's local service area meet the criteria described in subsection (g) of this section, the designated MRA will

contact other MRAs in whose service areas the individual might be appropriately served and provide them with a copy of the community living profile.

(1) A representative from each of those MRAs will meet with the individual, any persons actively involved with the individual, and the IDT to discuss the types of community living arrangements available within that MRA's local service area which might meet the service and support needs identified by the IDT and the individual and any preferences and desires expressed by the individual.

(2) At this or a later meeting, each of the MRA representatives will present a list of the providers in that MRA's local service area. Current information furnished to those MRAs by the providers in the local service areas of those MRAs will be shared with the individual, any actively involved persons, and the facility IDT.

(3) The IDT, with input from the MRA(s), will select the providers to which the community living profile is to be sent. The providers must:

(A) consider any preferences and desires which may have been expressed by the individual or any persons actively involved;

(B) meet the needs of the individual, as determined by the IDT, including:

- (i) medical and health;
- (ii) emotional and behavioral;
- (iii) transportation;
- (iv) employment, vocational, and educational;

(C) complement the individual's existing social relationships and support network.

(4) Within 14 calendar days after the providers have been selected by the IDT, the MRA(s) will forward the profile to the providers. The designated MRA will coordinate with the other MRAs to ensure that profiles are sent to all selected providers.

(i) The designated MRA will coordinate with the facility and other MRAs, as appropriate, to assist the individual in making arrangements for preselection visits to proposed providers. If overnight visits are utilized, the facility first shall assure that staff at the proposed provider receive the following prior to or at the time of the preselection visit:

- (1) identifying data including legal status and determined disability(ies);
- (2) pertinent medical/medication information;
- (3) behavioral data; and
- (4) other pertinent treatment information.

(j) The facility will send an adequate medication supply, clothing, personal items, and adaptive equipment with the individual at the time of the overnight visit.

(k) Following any preselection visits by the individual, the IDT will meet to decide on a provider and to complete the community living/discharge plan.

(l) If the individual is a child, the community living/discharge plan will address plans for integration into the community. Planning

for the move should be coordinated through the local Community Resource Coordination Group.

(m) The IDT may request that the designated MRA facilitate the development of a specific community living arrangement if there is no arrangement in existence which meets the individual's service and support needs as described in the community living profile and the preferences and desires of the individual.

§402.318. Arrangements for Individual's Move into the Community.

(a) The MRA shall verify that the provider has adequate life safety provisions in place and that there are no environmental concerns that impact the individual's needs. Any problems will be reported by the MRA to the IDT for discussion with the individual and LAR.

(b) Within 14 calendar days of the IDT meeting at which a provider is selected the facility will forward copies of a draft community living/discharge plan to the designated MRA, any other involved MRA, the provider, the assigned regional monitor, the individual with the ability to provide legally adequate consent, and the LAR, along with the:

- (1) planned date for the individual's move, if available;
- (2) report from the last annual planning meeting of the IDT;
- (3) most recent psychological, social, medical, and vocational/educational assessments; and
- (4) reports from any interim meetings of the IDT which addressed community living issues not addressed at the annual planning meeting.

(c) The regional monitor will review the material, visit the provider setting as needed, and report back to the IDT within 14 calendar days of receiving the material with a recommendation of approval or disapproval. The IDT immediately will forward the regional monitor's information to the individual with the ability to provide legally adequate consent or the LAR.

(d) When the community living arrangement is approved by the regional monitor to serve the individual, an IDT meeting will be scheduled to make final arrangements for the individual's move to the community as described in this section and complete the community living/discharge plan for distribution to all parties.

(e) When the provider is not approved to serve the individual, the regional monitor will make written recommendations for specific remedies to the MRA. The MRA will immediately forward copies of the written recommendations to the individual and LAR, the facility IDT, and the provider.

(1) The individual with the ability to provide legally adequate consent or the LAR has the options of:

- (A) continuing with the move after resolution of the problems as confirmed by the regional monitor;
- (B) continuing with the move without resolution of the problems as confirmed by the regional monitor; or
- (C) selecting another provider.

(2) If the individual does not have the ability to provide legally adequate consent and does not have an LAR, then the individual will remain in the facility until:

(A) the problems are resolved as confirmed by the regional monitor; or

(B) another provider is identified by the IDT and the designated MRA because the problems cannot be resolved.

(f) If the IDT, MRA, and regional monitor disagree concerning resolution of problems as described in subsection (e)(2) of this section, the IDT will notify the head of the facility within one working day. The head of the facility will name a review team, consistent with the facility's written policies and procedures, to evaluate the situation and make a consensus recommendation to the head of the facility within 21 calendar days.

(g) When the situations described in subsection (e) of this section are resolved and a final decision is made for the individual to move to the community, an IDT meeting will be scheduled to make final arrangements for the individual's move and to complete the community living/discharge plan for distribution to all parties.

(h) When the individual moves, the facility shall ensure the following:

(1) a 30-day supply of prescribed medications has been provided;

(2) individual's personal belongings are prepared to accompany the individual;

(3) all necessary financial arrangements and agreements are addressed;

(4) appropriate special instructions for the individual or others are furnished in writing and orally prior to or at the time of departure;

(5) the records described in subsection (j) of this section shall accompany the individual; and

(6) the appropriate Social Security office has been notified of the individual's impending move.

(i) Responsibilities for transporting the individual to the community living arrangement will be detailed in the community living/discharge plan. If deemed necessary by the IDT, these responsibilities could include having facility and/or MRA staff accompany the individual and remaining there for a period of time deemed necessary for satisfactory transition. The MRA will assign a service coordinator who will meet with the individual and LAR before or on the day of the move.

(j) The following records, as applicable, will be provided by the facility to the provider before the move or will accompany the individual with copies also offered to the individual or LAR before or at the time of the move:

- (1) a copy of birth certificate;
- (2) copies of any current legal documents;
- (3) a copy of the individual's Social Security card;
- (4) a current photograph;
- (5) a copy of the immunization record;
- (6) a copy of the height and weight record;
- (7) a copy of the seizure record;

(8) a copy of the most recent physician's orders, to include treatment and diet orders;

(9) a copy of the most recent medical and dental examination;

(10) copies of the most recent laboratory test results to include any one of a kind laboratory test results;

(11) copies of any additional significant reports including the most recent chest X-ray, electrocardiogram (EKG), or electroencephalogram (EEG);

(12) a copy of the social history and the most recent psychological examination;

(13) Medicaid, Medicare, or third-party insurance cards, if available;

(14) copy of current nursing care plan;

(15) summary of the individual's medical history to include all major surgeries, significant acute illnesses, and injuries requiring hospitalization or a long recovery period;

(16) a summary of the individual's medication history to include start and stop dates, dose ranges and effectiveness of all longterm medications, and history of antibiotic use to include dates, effectiveness, sensitivities, and allergies;

(17) summary of dental history including all oral surgeries, extractions, restorations, appliances, and types of anesthesia required for dental work; and

(18) any other data requested by the community program or by the individual or LAR.

(k) Prior to or at the time of movement, the facility physician shall prepare a letter summarizing the highly relevant medical information to be given to the new physician or health care entity that will be providing services to the individual in the community. The letter will be copied to the designated MRA and other involved MRA and the provider. When appropriate, the facility physician shall communicate directly with the new physician or health care entity.

(l) If a school eligible individual will be enrolled in public school, the facility and MRA should provide the following to the school district prior to the move or within 14 working days of the move:

(1) birth certificate or another document as proof of identity;

(2) medical history and medical records, including current immunization records;

(3) social history;

(4) vision and hearing screening and/or evaluation;

(5) reports of psychological, educational, related services, and vocational assessments;

(6) habilitation plan, including plan for reintegration;

(7) educational records from other school districts which may have served the school eligible individual, including the most recent Admission, Review and Dismissal (ARD) meeting summary, most recent Individual Education Plan, and for school eligible

individuals over the age of 13, the most recent Individual Transition Plan; and

(8) if the individual was committed to the facility, a copy of the court order.

(m) A provider required to comply with §401.60 of this title (relating to Interagency Coordination of Special Education Services to Students with Disabilities in Residential Care Facilities) will notify in writing the school district where the provider is located of the admission of a school eligible individual. The notification will occur no later than three working days after the admission.

§402.321. Community Living/Discharge Plan.

(a) Designated facility staff will prepare the community living/discharge plan as described in §402.318 of this title (relating to Arrangements for Individual's Move into the Community) and this section. The plan incorporates information provided by the individual, LAR, MRA, other facility staff, regional monitor, and the provider. The plan:

(1) is customized based on the abilities and needs of the individual to specify the:

(A) timelines and intervals for monitoring activities;

(B) form those monitoring activities will take (e.g. on-site visitations, phone contacts, record reviews, and written reports);

(C) responsibilities of the MRA, regional monitor, and provider; and

(D) criteria for a recommendation for discharge from the facility;

(2) serves as the basis for the individual habilitation plan (IHP) or support plan which will be developed by the provider, the individual, and LAR once the individual has moved into the community living arrangement; and

(3) is approved by the individual, LAR, MRA, regional monitor, facility, and provider before the individual moves from the facility.

(b) The plan can be in any format acceptable to all parties (individual, LAR, MRA, facility, regional monitor, and provider), but must contain the elements described in this section. A sample format provided by the department may be used as is or modified as deemed appropriate. Copies are available by contacting: Office of Policy Development, Texas Department of Mental Health and Mental Retardation, P.O. Box 12268, Austin, Texas 78711- 2668, (512) 206-4516

(c) The community living/discharge plan will be completed as follows:

(1) The community living profile (section I of the sample format) is completed by the IDT when a recommendation for a community living arrangement has been made and accepted and details:

(A) essential information identifying the individual;

(B) the preferences and desires of the individual (e.g., type of setting, vocational or habilitation services, etc.) and the service and support needs;

(C) the individual's medical, psychiatric, and behavioral needs;

(D) the date of the determination of mental retardation conducted as described in Chapter 405, Subchapter D of this title (relating to Determination of Mental Retardation and Appropriateness for Admission to Mental Retardation Services); and

(E) name and phone number of facility contact person.

(2) The community living data (section II of the sample format) is completed by the facility upon selection of a provider, with information from the provider and MRA, and details:

(A) the name, address, and phone number(s) of the physician or health care entity that will become the individual's primary health care provider;

(B) name(s), address, and phone numbers of contacts at the designated MRA, and others, as appropriate;

(C) name, address, and phone numbers of the provider and contact person;

(D) address, telephone number, and type (HCS, ICF, other) of provider, and contact person (address and phone number, if different);

(E) name, address, phone number for school, job, or day program and contact person (address and phone number, if different);

(F) name, address, and phone number of individual program coordinator; and

(G) identification of the MRA service coordinator assigned to provide continuity of services.

(3) The findings and observations (section III of the sample format) are described by the facility and include:

(A) thorough medical and behavioral information, which will be communicated to the physician who will be providing care in the community;

(B) all current physician orders and treatments, including rationale for all medications prescribed and dispensed by the facility, and amount dispensed which will be continued after the move; and

(C) a brief summary of findings, events, and progress during the period the individual resided in the facility;

(4) The community living information (section IV of the sample format) is compiled based on information supplied by the individual, LAR, facility and MRA staff, and the provider and includes:

(A) individual's personal likes, dislikes, and preferences (include friends and important relationships);

(B) specific steps and activities necessary to accomplish a successful transition;

(C) outcomes important to the individual and related personal goals;

(D) Supports and services necessary to support the individual in achieving the outcomes important in the individual's life (incorporate all services and supports including residential,

vocational, social, leisure, religion, health, safety, financial, and transportation);

(5) The community living monitoring activities (section V of the sample format) are determined by the MRA, regional monitor, facility, and provider with the concurrence of the individual and LAR (or the IDT if the individual does not have the ability to provide legally adequate consent and there is no LAR), and include:

(A) the responsibilities of the regional monitor and MRA, as agents of the department, for verifying the outcomes and criteria established for successful transition have been met with identification of how verification is to be accomplished (e.g. on-site visitation, phone contacts, record reviews, and written reports) and specific timelines for the completion of monitoring activities;

(B) specific actions to be taken by the MRA, regional monitor, and facility in the event that the outcomes and criteria are not being met; and

(C) criteria by which the MRA will make a recommendation, with the concurrence of the regional monitor, to the head of the facility that the individual be discharged from the facility; and

(D) expected date of discharge from facility.

(6) The agreements portion (section VI of the sample format) is reviewed and signed by the individual, LAR, regional monitor, and an authorized representative of the facility, MRA, and provider, and contains the typed names and titles of the signatories, and the date the plan is approved and signed. This portion includes, at a minimum, the following commitments:

(A) provider agrees that the community physician, assigned direct care staff, provider consultants, and other service providers have been informed of all the information contained in the community living/discharge plan;

(B) provider agrees that the regional monitor and MRA, as agents of the department, shall have access to the individual, the living setting, and necessary records;

(C) provider agrees to notify the MRA and the individual's LAR of any conditions which may indicate the living arrangement is in jeopardy and to give the MRA and LAR written notice of intent to discharge the individual at least 10 working days before the planned day of discharge;

(D) MRA agrees that the provider and a designated facility staff person will receive accurate and timely written reports, including a list of specific findings for any significant monitoring activity described in paragraph (5) of this subsection;

(E) facility and MRA agree that the individual and LAR have had an opportunity to participate in the development of the community living/discharge plan;

(F) facility and MRA agree that the individual and/or LAR have been counseled on the relative advantages and disadvantages of the individual's move;

(G) individual, LAR, facility, MRA, regional monitor, and provider agree to make a good faith effort to resolve issues that may be identified by any of these parties until the community living/discharge plan culminates in the individual's discharge from the facility.

(7) The discharge plans/activities (section VI of the sample format) are summarized by the facility upon completion of the terms and conditions specified in the community living monitoring activities portion of the plan and will include:

(A) a summary of the outcomes and status of the community living arrangement;

(B) a resolution of any issues that occurred during the transition process; and

(C) date of discharge from the facility.

(d) If the provider does not actively participate in the development of the community living/discharge plan before the individual is moved from the facility to the community living arrangement, the IDT will inform the individual or LAR of the circumstances.

(1) The individual with the ability to provide legally adequate consent or the LAR has the options of:

(A) continuing with the move after resolution of the problems;

(B) continuing with the move without resolution of the problems with the understanding that the individual will be discharged from the facility 30 calendar days after the move; or

(C) selecting another provider.

(2) If the individual does not have the ability to provide legally adequate consent and does not have an LAR, then the individual will remain in the facility until:

(A) the problems are resolved (in a reasonable period of time as determined by the IDT) and community living/discharge plan is completed satisfactorily; or

(B) another provider is identified by the IDT and the designated MRA because the problems cannot be resolved.

(e) In the event that issues cannot be resolved during the development or implementation of the community living/discharge plan, the issue may be forwarded to the commissioner or designee for review and recommended action.

(f) If, following the individual's move to the community, the provider doesn't comply with the provisions of the community living/discharge plan and the MRA has exhausted all options to resolve the conflict, the IDT at the facility will be reconvened.

(1) If the IDT determines that the individual with the ability to provide legally adequate consent or the LAR wants to continue with the community living arrangement, the MRA with the concurrence of the regional monitor, will recommend to the head of the facility that the individual be discharged from the facility within 30 calendar days of the IDT meeting and that monitoring activities required by the community living/discharge plan be discontinued.

(2) If the individual does not have the ability to provide legally adequate consent and does not have an LAR, the IDT will research the situation and will refer the issue to the commissioner or designee for review and recommended action. If the individual is removed from the provider's services, the IDT and MRA will work cooperatively to find alternative services.

(g) If during the term of this plan representatives of the department, including the regional monitor and staff of the MRA, have

evidence to believe that an individual is in an unsafe environment or that the individual's needs are not being met, they will notify the appropriate licensing or regulatory agency immediately.

§402.322. Guidelines for Changing County of Residence.

(a) By the time the individual is discharged the individual's designated MRA, as recorded in CARE, will be the MRA for the local service area in which that individual lives unless the individual or LAR prefer that another MRA be the designated MRA. Consideration will be given to the preferences of actively involved family members if the individual is not able to provide legally adequate consent and does not have a LAR.

(b) If a change in CARE of the designated MRA is indicated, the circumstances for making this change will be documented in the community living/discharge plan.

(c) Disagreements concerning a change in the designated MRA shall be resolved, whenever possible, by staff of the affected MRAs. If this is not possible, the matter shall be referred to the commissioner or designee.

(d) Time limited changes of designated MRA are acceptable and must be documented with a memorandum of agreement between the involved MRAs.

(e) If an out of state transfer is indicated the facility shall contact the department's Interstate Compact coordinator in Central Office.

(f) The designated MRA shall be recorded or updated in CARE. Only an individual's current designated MRA can make the change in the CARE system.

§402.323. References.

Documents referenced in this subchapter include:

- (1) Texas Health and Safety Code, §531.002;
- (2) Texas Health and Safety Code, §533.035;
- (3) Texas Health and Safety Code, §534.0535;
- (4) Texas Health and Safety Code, Title 7, §591.006;
- (5) Texas Health and Safety Code, §591.011;
- (6) Texas Health and Safety Code, Chapter 593, Subchapter C;
- (7) Texas Health and Safety Code, §594.011;
- (8) Texas Health and Safety Code, §594.018;
- (9) Acts 1995, 74th Legislature, Chapter 949, §1, concerning longterm care vision;
- (10) §401.49 of this title (relating to Memorandum of Understanding (MOU) on Coordinated Services to Children and Youths);
- (11) §401.60 of this title (relating to Interagency Coordination of Special Education Services to Students with Disabilities in Residential Care Facilities);
- (12) Chapter 401, Subchapter G of this title (relating to Community Mental Health and Mental Retardation Centers);
- (13) Chapter 401, Subchapter I of this title (relating to Certification of Community Residential Programs);

(14) Chapter 403, Subchapter K of this title (relating to Client-Identifying Information);

(15) Chapter 405, Subchapter D of this title (relating to Determination of Mental Retardation and Appropriateness for Admission to Mental Retardation Services);

(16) Chapter 410, Subchapter A of this title (relating to Public Responsibility Committees);

(17) 19 TAC §89.1060 (relating to Definitions of Certain Related Services) in rules of the Texas Education Agency; and

(18) Texas Mental Health and Mental Retardation Board policy statement concerning "Family Supportive Services For Children and Youth" dated March 25, 1994.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706703

Ann Utley

Chair, Texas MHMR Board

Texas Department of Mental Health and Mental Retardation

Effective date: September 1, 1997

Proposal publication date: February 28, 1997

For further information, please call: (512) 206-4516

TITLE 31. NATURAL RESOURCES AND CONSERVATION

Part XX. Edwards Aquifer Authority

Chapter 701. Filing and Processing of Permit Applications

The Edwards Aquifer Authority (the "Authority") adopts new Subchapters I, J, and K, consisting of new §§701.171, 701.172, 701.173, 701.174, 701.175, 701.176, 701.191, 701.192, 701.193, 701.194, 701.195, 701.196, 701.211, 701.212, 701.213, 701.214, 701.215, 701.216, 701.217, 701.218, 701.219, 701.220, and 701.221, relating to Term Permits, Emergency Permits, and Well Construction Permits. Sections 701.172, 701.173, 701.193, and 701.217 are adopted with changes to the proposed text as published in the March 28, 1997, issue of the *Texas Register* (22 TexReg 3079). Sections 701.171, 701.174, 701.175, 701.176, 701.191, 701.192, 701.194, 701.195, 701.196, 701.211, 701.212, 701.213, 701.214, 701.215, 701.216, 701.218, 701.219, 701.220, and 701.221 are adopted without changes and will not be republished.

The justification for these sections is to implement the Edwards Aquifer Authority Act, Chapter 626, 73d Legislature, Regular Session (1993) (the "Act"). Sections 701.171-701.176 implement §1.19 of the Act which provides that the Authority may issue term permits for withdrawal of water from the Edwards Aquifer. Sections 701.191-701.196 implement §1.20 of the Act which provides that the Authority may issue emergency permits to prevent the loss of life or to prevent severe, imminent threats

to public health and safety. Sections 701.211-701.221 implement §1.15(b) of the Act and implement the powers granted to the Authority under §36.113 of the Texas Water Code, to issue well construction permits.

The change to the proposed text of §701.172, which relates to conditions for term permits, is the insertion of the words, "of water" after the words, "The Authority may issue an interruptible term permit for withdrawal." in the first sentence of subsection (a). The changes to the proposed text of §§701.173, 701.193, and 701.217 are summarized as follows: Each of these sections relates to the information required in an application for a permit and the proposed text of each began with the words, "In addition to the requirements set forth in §701.6 of this title (relating to Preparation of an Application)..." This language has been deleted from the first sentence of each section because proposed §701.6 has been withdrawn.

The new Subchapter I of Chapter 701, titled Term Permits, consists of §§701.171 through 701.176. These adopted sections require a permit for term use (§701.171), set forth the conditions for term permits to include those specified in §1.19 of the Act (§701.172), set forth the information required in an application for a term permit (§701.173), provide for the considerations to be used in a technical review of a term permit application (§701.174), set forth the required elements which must be included in a term permit issued by the Authority (§701.175), and provide that a term permit shall be issued upon proper application within 30 days after the board determines to grant the application.

The new Subchapter J of Chapter 701, titled Emergency Permits, consists of §§701.191 through 701.196. These adopted sections provide that emergency permits may be obtained only after all other permits issued by the Authority have been exhausted (§701.192), set forth the conditions for term permits to include those specified in §1.20 of the Act (§701.192), set forth the information required in an application for an emergency permit (§701.193), create a public emergency permit exemption (§701.194), allow the general manager to issue an initial emergency permit without board action (§701.195), and establish conditions for the renewal of an emergency permit (§701.196).

The new Subchapter K of Chapter 701, titled Well Construction Permits, consists of §§ 701.211 through 701.221. These adopted sections provide that a permit is required for drilling, equipping, completing, or altering the size of a non-exempt well or a domestic or livestock well within a subdivision that must be platted (§701.211), provide for the registration of all new wells (§701.212), provide for the issuance of well construction permits (§701.213), require proof of authorization to withdraw water as a prerequisite for application for a permit (§701.214), grant authority for the general manager to grant 60-day extensions (§701.215), exempt certain wells which will produce less than 25,000 gallons per day for domestic or livestock use if they are not in a subdivision required to be platted (§701.216), provide for the information required in an application (§701.217), provide for the considerations in a technical review of an application (§701.218), set forth the required elements of a well construction permit issued by the Authority (§701.219), provide for the issuance of a permit by the Authority within 30 days after the Authority determines to grant the application (§701.220),

and set forth the submission requirements after the completion of well construction (§701.221).

Five public hearings on the proposed rules were held to receive comments from interested persons. The dates and places of the hearings were: April 16, 1997 in Uvalde; April 17, 1997, in New Braunfels; April 18, 1997, in San Antonio; April 24, 1997, in Uvalde; and April 25, 1997, in Hondo. Three written comments were received, but only one of them addressed the sections adopted. The comments received were supportive of the adopted rules and designed to clarify them. These comments and the Authority's response are summarized as follows:

COMMENT: For consistency, all the criteria set forth in §701.174 and §701.218 used for determining whether to grant an application for a term permit or for a well construction permit should be phased in a manner suggesting an affirmative finding would favor issuance. Also, a more flexible criterion, such as "reasons of policy" should be added to the list of criteria in §701.174.

COMMENT: Remedy a perceived ambiguity by clarifying §701.191, relating to when an emergency permit may be issued, to make it clear that an emergency permit will be issued only when the emergency requires the use of water in addition to that available under all other permits held.

COMMENT: Amend previously adopted §701.95 to make it clear that the definition of "convincing evidence" contained therein applies to §701.193, relating to information required in an application for an emergency permit.

COMMENT: Clarify §701.212(a) to make it clear that the Authority will notify an applicant for registration of a well within five days of receipt of the registration form, and perhaps amend the rule to allow, with notice to the registrant, additional time for the Authority to consider when an exemption is applicable.

COMMENT: Clarify §701.212(b) to make it clear whether a registrant must file the registration form after it is approved or whether the initial filing is sufficient. Also suggests the scope of those liable for failing to register perhaps should be extended.

COMMENT: Clarify §701.212(b) to provide that it is a violation to drill or authorize the drilling of a well for which a permit has not been issued as well as drilling or authorizing the drilling of an exempt well which has not been registered.

COMMENT: Amend §701.213 to eliminate mandatory language which might be interpreted to make issuance of a well construction permit by the Authority mandatory.

COMMENT: Amend §701.215 to give the general manager the discretion to grant well construction permit extensions of less than 60 days, or to grant additional extensions for good cause.

COMMENT: Amend §701.216(c) relating to exemptions from well construction permit requirements for existing registered wells when the well construction does not alter the capacity of the well more than 15%, to prevent a registrant from successively expanding his well capacity by increments of 15% at a time.

RESPONSE: All the comments were constructive and consideration will be given to incorporating them if and when amend-

ments to the adopted sections are proposed. However, since the comments do not recommend substantive changes, and early adoption of these sections is essential, the proposed sections adopted herein were adopted as published on March 28, 1997.

Subchapter I. Term Permits

31 TAC §§701.171-701.176

The new sections are adopted under §1.11 of the Act which provides the Authority with rule-making powers necessary to carry out the Authority's powers and duties under the Act.

The Authority adopts these new sections pursuant to its general and special powers under the Edwards Aquifer Authority Act (the "Act"), chapter 626, 73rd Legislature, Regular Session, 1993, as amended by chapter 621, 74th Legislature., Regular Session, 1995 (the "Act," §§1.08, 1.11, 1.14, 1.15, 1.16, 1.17, 1.19, 1.26, 1.29, 1.36, 1.37, 1.38, and 1.40 of the Act); and Texas Water Code, Chapter 36.

The adopted sections implement the Edwards Aquifer Authority Act, chapter 626, 73rd Legislature, Regular Session (1993), §§1.08, 1.11, 1.14, 1.15, 1.16, 1.17, 1.19 and 1.35.

§701.172. Conditions for Term Permits.

(a) The Authority may issue an interruptible term permit for withdrawal of water for any period the Authority considers appropriate, but may not issue a term permit for a period of more than 10 years.

(b) A holder of a term permit may not withdraw water from the San Antonio pool of the Aquifer unless the level of the Aquifer is higher than 665 feet above sea level, as measured at Well J-17, as determined by the Authority.

(c) A holder of a term permit may not withdraw water from the Uvalde pool of the Aquifer unless the level of the Aquifer is higher than 865 feet above sea level, as measured at Well J-27, as determined by the Authority.

(d) A term permit does not vest in the holder of the permit any right to the use of Aquifer water other than that is stated on the permit and shall expire and be canceled in accordance with its terms.

(e) A holder of a term permit may not transfer the permit to another person without the approval of the Authority.

(f) A holder of a term permit may modify the permit with the approval of the Authority.

§701.173. Information Required in an Application for a Term Permit.

An application for a Term permit must contain the following information to the extent it is available:

- (1) a comprehensive list of all other permits issued by the Authority and held by the applicant;
- (2) convincing evidence which establishes that the applicant can beneficially use the water authorized by the term permit and the applicant is eligible to seek a term permit;
- (3) the nature and purpose(s) of the proposed use and the amount of water to be used for each purpose;
- (4) proposed water conservation measures to be implemented including a conservation plan;

(5) the identification and location of each existing well or proposed well and the estimated rate at which water will be withdrawn under the term permit; and

(6) a description of the proposed device for measuring total water withdrawn from the Edwards Aquifer under the term permit.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 21, 1997.

TRD-9706720

Gregory M. Ellis

General Manager

Edwards Aquifer Authority

Effective date: June 10, 1997

Proposal publication date: March 28, 1997

For further information, please call: (210) 222-2204



Subchapter J. Emergency Permits

31 TAC §§701.191-701.196

The Authority adopts these new sections pursuant to its general and special powers under the Edwards Aquifer Authority Act (the "Act"), chapter 626, 73rd Legislature, Regular Session, 1993, as amended by chapter 621, 74th Legislature., Regular Session, 1995 (the "Act," §§1.08, 1.11, 1.14, 1.15, 1.16, 1.17, 1.20, 1.26, 1.29, 1.36, 1.37, 1.38, and 1.40 of the Act); and Texas Water Code, Chapter 36.

The adopted sections implement the Edwards Aquifer Authority Act, chapter 626, 73rd Legislature, Regular Session (1993), §§1.08, 1.11, 1.14, 1.15, 1.16, 1.17, 1.20, and 1.35.

§701.193. Information Required in Application for Emergency Permit.

An application must contain the following information to the extent it is available:

- (1) convincing evidence which establishes that the applicant is eligible to seek an emergency permit;
- (2) a list of all other permits by the Authority held by the applicant;
- (3) the purpose(s) for which the underground water will be used; and
- (4) convincing evidence which establishes that an emergency permit is necessary to prevent the loss of life or to prevent severe, imminent threats to the public health or safety.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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TRD-9706719

Gregory M. Ellis

General Manager

Edwards Aquifer Authority

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For further information, please call: (210) 222-2204

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Subchapter K. Well Construction Permits

31 TAC 701.211-701.221

The Authority adopts these new sections pursuant to its general and special powers under the Edwards Aquifer Authority Act (the "Act"), chapter 626, 73rd Legislature, Regular Session, 1993, as amended by chapter 621, 74th Legislature., Regular Session, 1995 (the "Act," §§1.08, 1.11, 1.14, 1.15, 1.16, 1.17, 1.20, 1.26, 1.29, 1.36, 1.37, 1.38, and 1.40 of the Act); and Texas Water Code, Chapter 36.

The adopted sections implement the Edwards Aquifer Authority Act, chapter 626, 73rd Legislature, Regular Session (1993), §§1.08, 1.11, 1.14, 1.15, 1.16, 1.17, 1.20, and 1.35.

§701.217. Information Required in an Application for a Well Construction Permit.

An application must contain the following information to the extent it is available and applicable:

- (1) the name and address of the land owner where the proposed well construction will be located;
- (2) the exact proposed location of the well construction site as provided in the application including the county, the section, block and survey; labor and league, and exact number of feet to the two nearest non-parallel property lines (legal survey line), or other adequate legal description;
- (3) a list of all permits issued by the Authority and held by the applicant that the well currently services or is proposed to service;
- (4) the proposed total depth of the well and proposed depth of cemented casing;
- (5) the proposed size of the pump, pumping rate, and pumping method;
- (6) the current or proposed use of the well, whether municipal, industrial, irrigation, domestic, livestock, recreation, monitor, observation or other use;
- (7) the approximate date well construction operations are to begin;
- (8) the location of the three nearest wells within a quarter of a mile of the proposed location and the names and addresses of the owners;
- (9) the location of any possible sources of contamination such as existing and proposed livestock and poultry yards, septic system absorption fields, petroleum storage tanks, etc.; and

(10)

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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TRD-9706739
Gregory M. Ellis
General Manager
Edwards Aquifer Authority
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TITLE 40. SOCIAL SERVICES AND ASSISTANCE

Part III. Texas Commission on Alcohol and Drug Abuse

Chapter 143. Awards

Subchapter A. Funding Mechanism

40 TAC §143.18, §143.19

(Editor's note: Sections 143.18 and 143.19 were adopted in the April 29, 1997, issue of the Texas Register, (21 TexReg 3821). The Texas Register inadvertently omitted the subsection letters in §143.18.

The Texas Commission on Alcohol and Drug Abuse adopts new §143.18, concerning annual report card and §143.19 concerning application cycles, with changes to the proposed text as published in the November 26, 1996, issue of the *Texas Register* (21 TexReg 11472).

The new sections are being adopted to require an annual report card for awards and to allow the commission to renew awards with satisfactory performance annually during a three-year application cycle. The title of §143.18 has been changed from Annual Performance Report to Annual Report Card. The text of §143.18 has been revised to state that the annual report card will include required program performance measures and that the commission will receive input from providers before establishing performance standards. The reference in §143.19 has been revised to reflect the title change in §143.18.

The new sections describe the process used for the annual report card and the application cycles.

The commission received comments from the City of Dallas, Department of Environmental and Health Services, and the South Texas Substance Abuse Recovery Services, Inc. Comments and responses are summarized below.

Comment: All providers should know in advance what is covered in the annual report card.

Response: The commission agrees with the comment. One reason for adopting these rules is to give providers formal notice of the process used for the annual report card. In addition, current providers will receive individualized letters describing the annual report card and application cycles, and new award packets will also include this information.

Comment: There should be a process to appeal if funding is not granted.

Response: Providers will have an opportunity to contest the accuracy of the report card, but further appeal is not warranted. Funded providers sign a contract to fulfill certain standards of performance. If the provider fails to meet those standards, the state has an obligation to seek other organizations interested in competing for the funds to ensure services are available to the impacted area. Providers receive feedback on their performance during the award period and have an opportunity to implement corrective action.

Comment: Required standards should be established through collaboration with providers.

Response: The commission agrees with the comment. The rule has been revised to reflect that providers will have input into the standards, beginning with the standards applied in fiscal year 1998 to determine fiscal year 1999 funding.

Comment: Measures should be culturally sensitive and community specific.

Response: The purpose of the report card is to provide comparable data on all providers. By definition, measures that are community specific cannot be used to compare one provider to another. The report card will include required performance measures. Although basic targets for performance measures are established for all providers, programs that provide sufficient justification may negotiate alternate targets. It should be noted that program evaluation is not limited to the items covered in the annual report card.

Comment: The provider should receive feedback prior to severe sanctions or consequences.

Response: The report card compiles a number of measures, and each measure has its own feedback loop. Providers receive information about their performance during the award period and have an opportunity to implement corrective action. In addition, the commission will implement a scoring system in fiscal year 1999 that differentiates multiple performance levels (as opposed to a simple pass/fail system) so that the report card can reward excellence.

Comment: The items included in the report card are not independent measures; they all directly or indirectly reflect fiscal performance. The report card should include qualitative, treatment-related program measures.

Response: Although the version of the report card initially proposed focused on administrative issues, the report card has been expanded to include performance measures that reflect program outputs and/or outcomes. The rule has been revised to reflect this addition. In addition, the commission plans to develop more measures of quality in the future.

The new sections are adopted under the Texas Health and Safety Code, §461.012(15), which provides the Texas Commission on Alcohol and Drug Abuse with the authority to adopt rules governing the functions of the commission, including rules that prescribe the policies and procedures followed by the commission in administering any commission programs.

The code affected by the adopted amendments is the Texas Health and Safety Code, Chapter 461.

§143.18. *Annual Report Card.*

(a) The commission compiles an annual report card on each service award.

(b) The commission notifies providers of the report card results in writing.

(c) The annual report card includes criteria that are scored on organizational performance and criteria that are scored on individual award performance.

(d) The commission establishes a minimum standard for each criterion after receiving input from providers. An award must achieve a passing score on each of the criteria to pass the report card. If the failing score is given for an organizational criterion, all of the provider's awards are subject to competition. If the failing score is for an award-based criterion, only that specific award is subject to competition.

(e) The commission compiles the annual report card in the first quarter of each fiscal year using data related to the previous fiscal year.

(f) The report card includes the following elements:

(1) timeliness and accuracy of reports;

(2) funding status;

(3) sanctions status;

(4) compliance with payment plans and agreements for providing services in lieu of payment; and

(5) required program performance measures.

(g) The elements of the report card, standards for each element, and notification timelines are specifically defined each year in an executive order. The commission shall request and consider input from providers before issuing the executive order.

(h) Providers that fail the report card will have an opportunity to present evidence if they believe the commission's data are erroneous, but the report card may not be appealed on any other grounds.

§143.19. *Application Cycles.*

(a) The commission places each service award that is subject to competition in a three-year application cycle. An executive order will be issued each year to identify awards that are not subject to competition.

(b) An award is not required to compete for renewal funds during its application cycle if the award maintains satisfactory performance as measured by the annual performance report described in §143.18 (relating to Annual Report Card).

(c) Transition to application cycles will occur in fiscal year 1997 for awards subject to competition.

(1) Existing awards that began in fiscal year 1996 will be assigned to application cycles ending in fiscal year 1998, fiscal year 1999, and fiscal year 2000. These assignments will be distributed so that approximately one-third of the treatment awards and one-third of the prevention/intervention awards in a region are placed in each application cycle.

(2) For awards issued later than fiscal year 1996, the first fiscal year of funding is the first year of the application cycle.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on April 18, 1997.

TRD-9705244

Mark S. Smock

Deputy for Finance and Administration

Texas Commission on Alcohol and Drug Abuse

Effective date: May 8, 1997

Proposal publication date: November 26, 1996

For further information, please call: (512) 349-6609

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TITLE 43. TRANSPORTATION

Part III. Automobile Theft Prevention Authority

Chapter 57. Automobile Theft Prevention Authority

43 TAC §57.52

The Automobile Theft Prevention Authority (ATPA) adopts §57.52, relating to charges for copies of public records, without changes to the proposed version, which was published in the March 4, 1997 issue of the *Texas Register* (22 TexReg 2420). The proposed rule implements the provisions of Government Code, §552.2611, which requires state agencies by rule to specify the charges the agency will make for copies of public records. §552.262 of the Government Code requires state agencies to use rules of the General Services Commission in determining charges. Rule 57.52 adopts the charges established by the General Services Commission.

No comments were received concerning adoption of this rule.

The rule is adopted under Texas Civil Statutes, Article 4413(37), §6(a), which authorizes the Authority to adopt rules to implement its powers and duties and Government Code, §552.2611, which requires state agencies to adopt rules on charges for open records.

The following are the statutes, articles, or codes affected by the proposed amendment:

Texas Civil Statutes, Article 4513(37) §6(a), Government Code §552.2611.

§57.52. Charges for Copies for Public Records.

(a) The charges for copies of public records of the authority will be the charges established by the General Services Commission, codified at §§111.61-111.70 of title 1 (relating to cost of copies of open records).

(b) The Authority may waive or reduce a charge if it determines that waiver or reduction is in the public interest.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on May 19, 1997.

TRD-9706650

Deanna Citerne

Acting Executive Director

Automobile Theft Prevention Authority

Effective date: June 11, 1997

Proposal publication date: March 4, 1997

For further information, please call: (512) 416-4606
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